A 8640 1

North American Telephone Association

Interconnect Industry Statistical Review 1979

INTERCONNECT INDUSTRY STATISTICAL REVIEW 1979

compiled by
the
Research Department
NORTH AMERICAN TELEPHONE ASSOCIATION

CONTENTS

SUBJECT	PAGE
Industry Outlook.	1-2
Number of Telephones in U.S.	3
Carrier Telephone Development	4
Carrier Business Telephone Development	5-6
Interconnect Telephone Development (Projected).	7-8
Interconnect Market Share Projections	9
Interconnect Key-PBX Revenues-(Projected)	10
Projected Growth - Business Telephone Market.	11
Interconnect PBX-Key Market Share Projections	12
Telephone Development by States	13
Telephone Development in Large Exchange Areas	14-26

INDUSTRY OUTLOOK

1979

In 1978, as in the previous year, slightly over six million telephones were installed in the United States, 5.5 million of these by Bell and USITA companies. This information is displayed in the graph on page four. Note that percentages are consistent on an almost linear basis, with deviations of no greater than .6 percent even in the worst economic conditions. In terms of the number of telephones installed per year, Bell and USITA have averaged 5,503,000 phones per year since 1963.

New carrier growth in business phones represented 1,900,000 instruments installed in 1978. Notice in the chart on page five that there was a dramatic adjustment from 1969 to 1970. The installed percentage ratio fell from a growth factor of 6.1 in 1969 to 3.4 in 1970. Contrary to what Bell and USITA would have you believe, this was not caused by the impact of interconnect sales, but rather by a strike of CWA workers and a minor economic recession. Under the most optimistic circumstances, there were only about 270,000 PBX and Key instruments sold by interconnect companies during 1969-1970. The probability is that the industry was actually much smaller than this.

The installation of business telephones by carriers has progressed at a fairly consistent pace since 1963, averaging 1,300,000 instruments per year until 1976, when competition really began to spur the industry. If one examines the mostly linear growth in both business and residential phone installations for the carriers, it becomes apparent that the interconnect industry has generated its own market and stimulated the market for the carriers. "Penetration" is then a misnomer, and "market share" the more appropriate term for the presently installed base of the interconnect companies.

Interconnect revenue projections are based on the best estimate of NATA, using information from a variety of public and private sources. For 1979, interconnect revenues are at the threshold of one billion dollars.

Bell System operating revenues for 1978 were $41.9 billion, while the independents showed $8.1 billion for the same period.

Overall growth in the carrier industry is little affected by economic conditions. Business telephone growth, however, is more easily disrupted by economic adjustment, strikes, facility failures, etc. The interconnect industry, heretofore, has not been thus impacted. 1980 will be a challenge for the private terminal equipment industry, however, with the cost of money soaring to 15 and 16 percent. While new sales are expected to be affected in some measure, placing the industry in a somewhat static condition, overall income will be up due to increased and aggressive marketing of adds, moves, changes, and maintenance. This category of income is expected to become substantially greater in the next few years, growing at the rate of some 10 percent a year.

In our calculation of systems and instruments, we have used for PBX, 102 instruments average per system at $800 per instrument as the average selling price, for Key, we have used 13 instruments per system at an average selling price of $900 each. We have not taken into account inflation, projecting that technological advances and competition in the marketplace will sustain the present pricing for the foreseeable future.

It must be emphasized that Bell's growth for the period 1968-1979 has been stimulated, rather than impacted, by competition. Thus, it would appear that the market share accruing to the interconnect industry was created solely by competition.

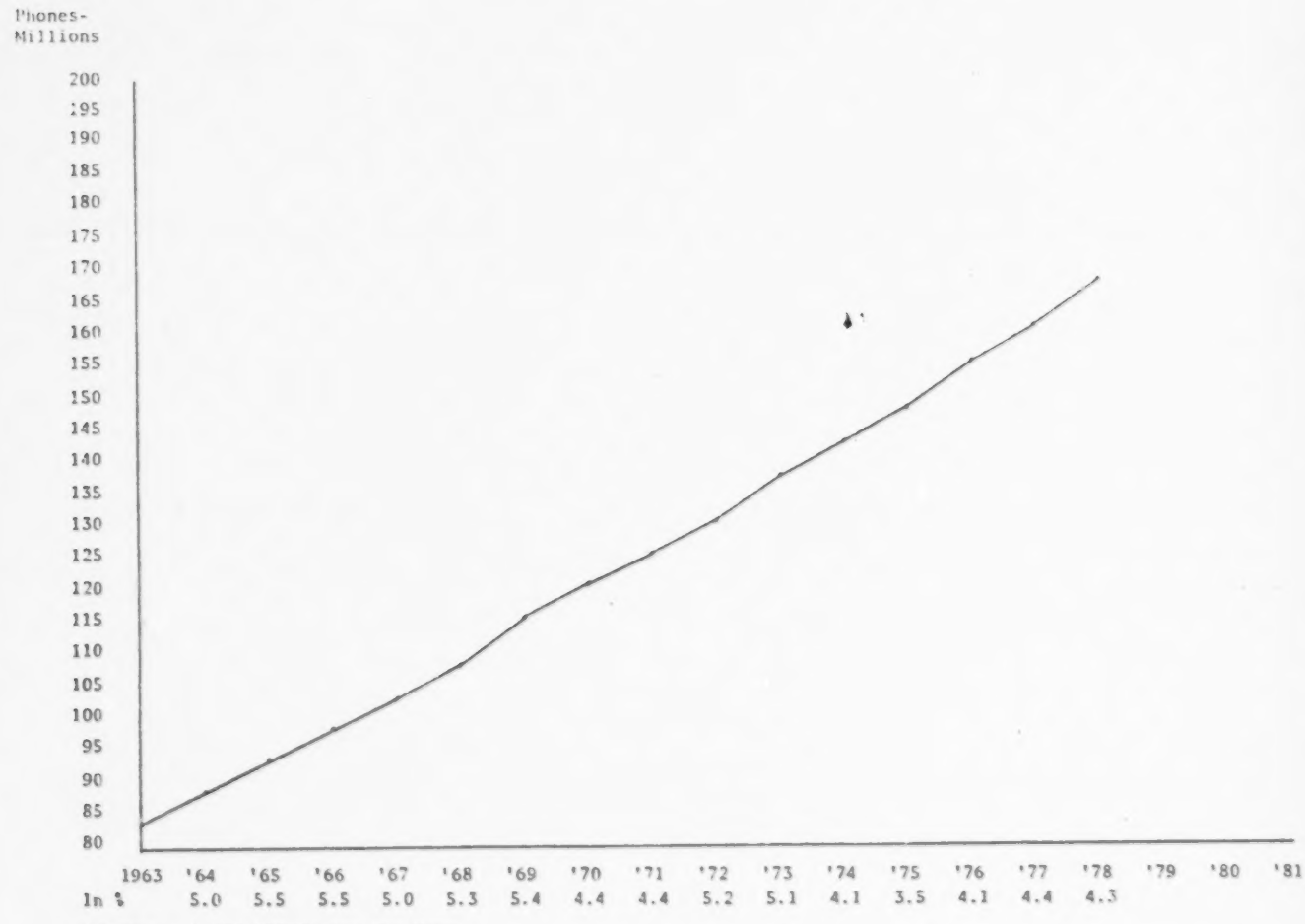
NUMBER OF TELEPHONES IN THE U.S. AT CLOSE OF 1978
(Projection through 1980)

YEAR	INSTRUMENTS
1980	181,939,000
1979	175,787,000
1978	169,026,948
1977	162,072,146
1976	155,173,288
1975	149,007,803
1974	143,971,452
1973	138,288,389
1972	131,602,500
1971	125,140,800
1970	120,221,000
1969	115,200,700
1968	109,255,600
1967	103,751,900
1966	98,785,600
1965	93,658,800
1964	88,787,400
1963	84,450,300
1962	80,971,700
1961	77,425,400
1960	74,341,100
1883	123,600

Projection is based on overall industry growth rate of 4.0% in 1979 and 3.5% in 1980. Figures do not include telephones supplied by the interconnect industry.

Source: FCC Common Carrier Statistics 1978

CARRIER TELEPHONE DEVELOPMENT - U.S.



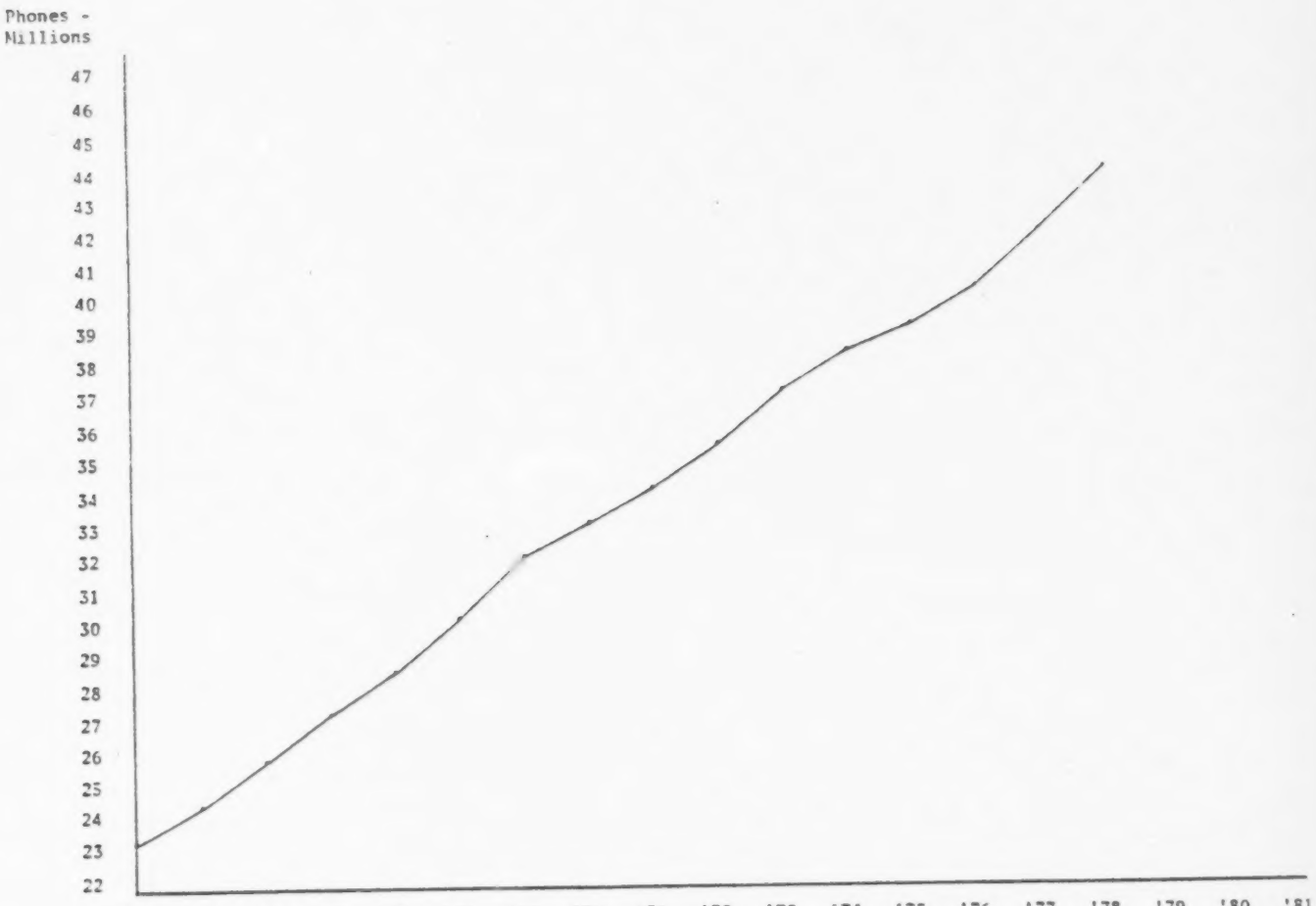
Average - 5,503,000 Phones Per Year
Source: FCC Common Carrier Statistics

CARRIER BUSINESS TELEPHONE DEVELOPMENTS

YEAR	INSTRUMENTS
1978	44,284,209
1977	42,320,000
1976	40,682,000
1975	39,498,000
1974	38,748,513
1973	37,434,884
1972	35,989,500
1971	34,444,900
1970	33,304,800
1969	32,220,600
1968	30,356,100
1967	28,929,300
1966	27,413,500
1965	26,008,300
1964	24,716,600
1963	23,609,400

Source: FCC Common Carrier Statistics 1978

CARRIER BUSINESS TELEPHONE DEVELOPMENT



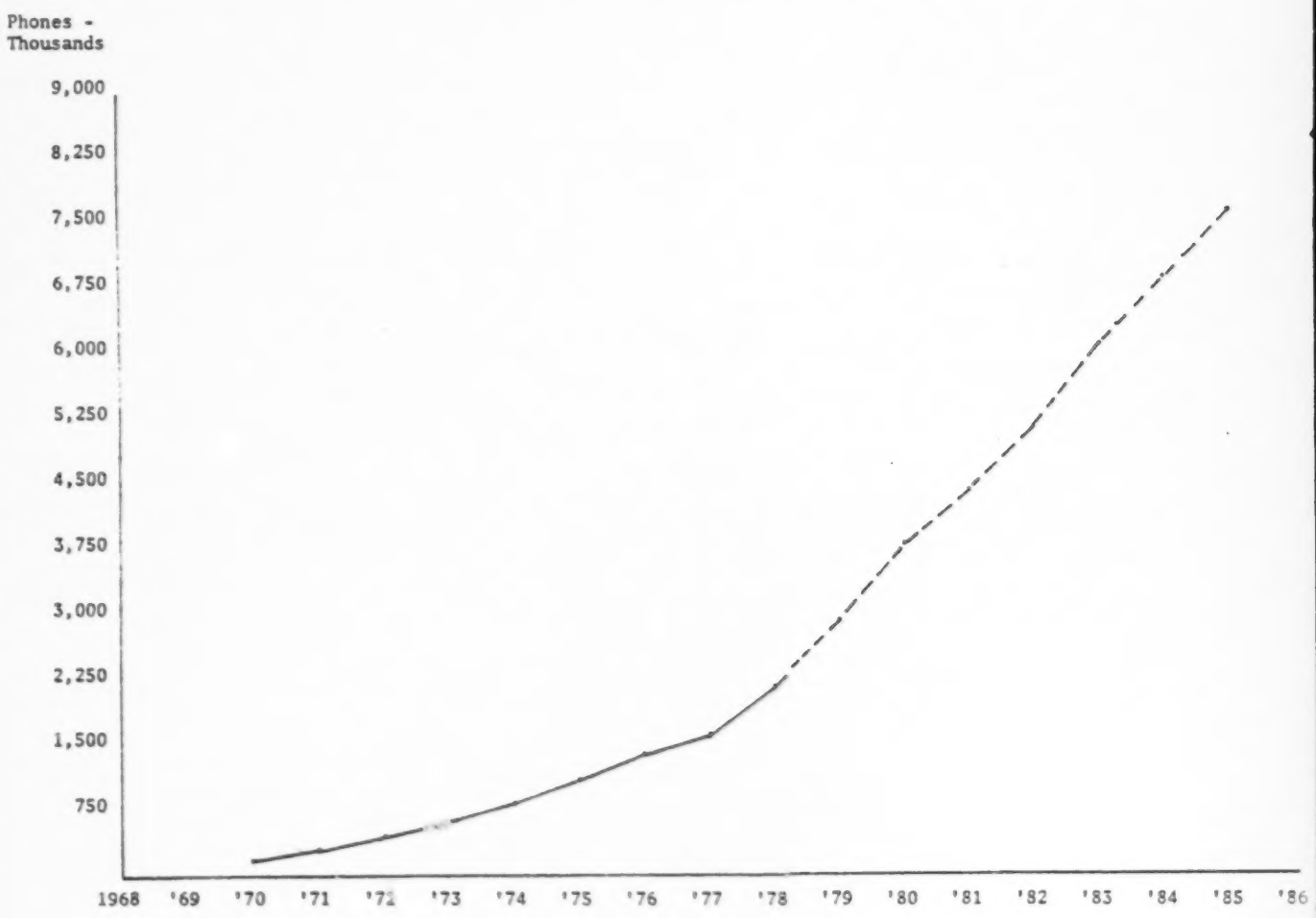
Average - 1,360,000 Phones Per Year

INTERCONNECT TELEPHONE DEVELOPMENT
(Projection through 1985)

YEAR	INSTRUMENTS
1985	7,897,000
1984	7,074,000
1983	6,339,000
1982	5,405,000
1981	4,540,000
1980	3,760,000
1979	2,980,000
1978	2,210,000
1977	1,700,000
1976	1,307,000
1975	1,005,000
1974	773,076
1973	595,000
1972	457,400
1971	351,846
1969-70	270,650

Source: NATA

INTERCONNECT TELEPHONE DEVELOPMENT
(PROJECTED)



Source: NATA

Interconnect Market Share Projections

1975, 1980 and 1984

(percent)

	1975	1980	1984
Stanford Research Institute	5.4	10.5	15.6
National Association of Regulated Utility Commissioners	8.0	21.0	39.0
New York Public Service Commission	5.6	18.4	31.6
Systems Applications, Inc.	4.0	17.0	25.0

Source: FCC, First Report, Docket 20003, Apendix C.

INTERCONNECT KEY-PBX REVENUES
(Projected)

	SYSTEMS	INSTRUMENTS	NEW SALES	AMC-MAINTENANCE	TOTAL
1979					
EPABX/CBX	6,800	692,000	$ 553,600	$ 166,000	$ 719,600
KEY	15,000	195,000	175,500	52,600	228,100
	21,800	887,000	729,100	218,600	947,700
1980					
EPABX/CBX	6,100	622,000	$ 497,600	$ 248,800	$ 746,400
KEY	12,000	158,000	142,200	71,000	213,200
	18,100	780,000	$ 639,800	$ 319,800	959,600
1981					
EPABX/CBX	6,617	675,000	$ 540,000	$ 270,000	$ 810,000
KEY	15,800	190,000	171,000	85,500	250,500
	22,417	865,000	$ 711,000	$ 355,500	$1,066,500
1982					
EPABX/CBX	7,150	728,500	$ 582,800	$ 320,500	$ 903,300
KEY	17,125	205,500	184,900	101,700	286,600
	24,275	934,000	$ 767,700	$ 422,200	$1,189,900

Source: NATA

PROJECTED GROWTH
BUSINESS TELEPHONE MARKET

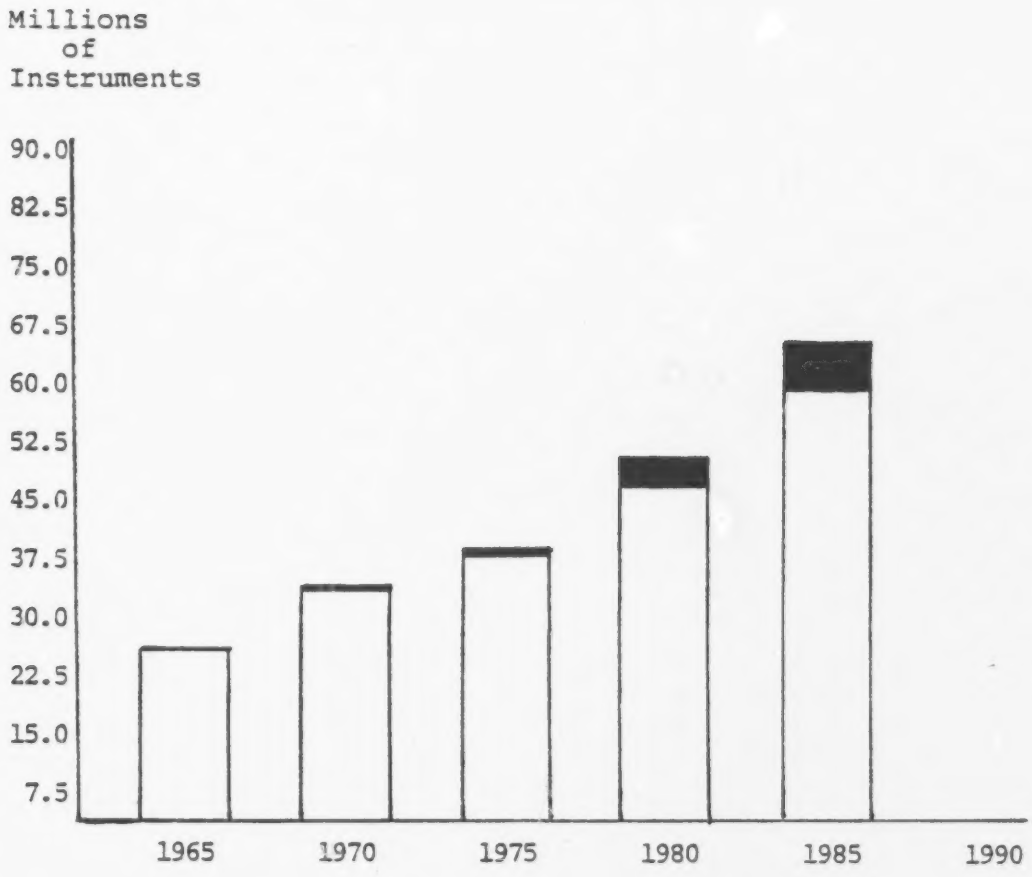
	1	2	3	4	5	6	7	8	9	10	11	12	13
	CARRIER PROJECTED GROWTH[1]	BELL-USITA-PBX-KEY[2] 000 INSTRUMENTS			ALL BELL-USITA BUSINESS PHONES (LESS COIN) 000 INSTRUMENTS			INTERCONNECT PROJECTED GROWTH	INTERCONNECT PBX-KEY[2] 000 INSTRUMENTS			COL 4 & 11 PBX-KEY MARKET	COL 7 & 11 BUSINESS TEL MARKET
		Jan 1		Dec 31	Jan 1		Dec 31		Jan 1		Dec 31		
1979	5.5%	30,999	1,549	32,548	42,395	2,331	44,726	30%	2,893	867	3,760	36,308	48,486
1980	4.0%	32,548	1,302	33,850	44,726	1,789	46,515	21%	3,760	780	4,540	38,390	51,055
1981	4.5%	33,850	1,522	35,372	46,515	2,093	48,608	19%	4,540	865	5,405	40,777	54,014
1982	5.0%	35,372	1,769	37,141	48,608	2,430	51,038	17%	5,405	934	6,339	43,480	57,377
1983	5.5%	37,141	2,043	39,184	51,038	2,807	53,845	12%	6,339	735	7,074	46,258	60,919
1984	6.0%	39,184	2,351	41,535	53,845	3,231	57,076	12%	7,074	823	7,897	49,432	64,973
1985	2.0%	41,535	831	42,366	57,076	1,141	58,217	12%	7,897	922	8,819	51,185	67,036
1986	3.0%	42,366	1,271	43,637	58,217	1,746	59,963	15%	8,819	1,290	10,109	53,746	70,072
1987	4.0%	43,637	1,745	45,382	59,963	2,398	62,361	15%	10,109	1,484	11,593	56,975	73,954
1988	5.0%	45,382	2,269	47,651	62,361	3,118	65,479	18%	11,593	2,048	13,641	61,292	79,120
1989	5.5%	47,651	2,621	50,272	65,479	3,601	69,080	18%	13,641	2,416	16,057	66,329	85,137
1990	6.0%	50,272	3,016	53,288	69,080	4,145	73,225	18%	16,057	2,851	18,908	72,196	92,133

1. Based on similar growth patterns 1963 - 1978.

2. Mix

	KEY	PBX
BELL	34%	66%
USITA	46%	54%
INTERCONNECT	22%	78%

INTERCONNECT PBX-KEY MARKET SHARE PROJECTIONS



Shaded area indicates interconnect share of market

Source: NATA

TELEPHONE DEVELOPMENT BY STATES
DECEMBER 31, 1978

STATE	TOTAL NUMBER OF TELEPHONES	DISTRIBUTION OF TELEPHONES				RESIDENT POPULATION	TOTAL TELEPHONES PER 100 POPULATION	PERCENT HOUSEHOLDS WITH TELEPHONE SERVICE[2]
		BY OWNERSHIP		BY TYPE OF SERVICE				
		BELL COMPANIES[1]	ALL OTHER	RESIDENCE	BUSINESS			
ALABAMA	2,419,979	2,013,461	406,518	1,849,732	570,247	3,768,000	64.22	89
ALASKA	240,000	0	240,000	144,000	96,000	398,000	60.30	92
ARIZONA	1,795,955	1,720,997	74,958	1,316,749	479,206	2,381,000	75.43	99
ARKANSAS	1,389,618	984,064	405,554	1,049,157	340,461	2,203,000	63.08	88
CALIFORNIA	19,123,465	14,899,356	4,224,109	13,608,641	5,514,824	22,506,000	84.97	99
COLORADO	2,180,695	2,144,529	36,166	1,546,552	634,143	2,694,000	80.95	100
CONNECTICUT	2,583,453	2,565,183	18,270	1,925,792	657,661	3,096,000	83.44	103
DELAWARE	501,332	501,332	0	367,578	133,754	584,000	85.84	100
DISTRICT OF COLUMBIA	1,069,187	1,069,187	0	512,042	557,145	669,000	159.82	101
FLORIDA	7,272,155	4,710,532	2,561,623	5,397,456	1,874,699	8,662,000	83.95	100
GEORGIA	3,904,785	3,356,311	548,474	2,906,935	997,850	5,106,000	76.47	93
HAWAII	661,303	0	661,303	429,847	231,456	900,000	73.48	105
IDAHO	662,359	526,754	135,605	486,866	175,493	889,000	74.51	97
ILLINOIS	9,792,452	8,083,362	1,709,090	7,314,939	2,477,513	11,255,000	87.01	99
INDIANA	4,042,963	2,608,950	1,434,013	3,099,101	943,862	5,389,000	75.02	95
IOWA	2,211,566	1,509,563	702,003	1,667,175	544,391	2,900,000	76.26	97
KANSAS	1,859,025	1,557,396	301,629	1,400,561	458,464	2,363,000	78.67	95
KENTUCKY	2,215,495	1,580,229	635,266	1,680,910	534,585	3,514,000	63.05	89
LOUISIANA	2,729,378	2,572,877	156,501	2,072,435	656,943	3,985,000	68.49	95
MAINE	769,565	677,135	92,430	592,796	176,769	1,096,000	70.22	101
MARYLAND	3,386,804	3,382,503	4,301	2,536,110	850,694	4,148,000	81.65	100
MASSACHUSETTS	4,472,070	4,468,131	3,939	3,272,607	1,199,463	5,774,000	77.45	100
MICHIGAN	6,981,139	6,093,010	888,129	5,326,848	1,654,291	9,214,000	75.77	100
MINNESOTA	3,056,266	2,410,275	645,991	2,254,351	801,915	4,024,000	75.95	100
MISSISSIPPI	1,464,192	1,392,484	71,708	1,131,797	332,395	2,413,000	60.68	84
MISSOURI	3,690,599	2,961,632	728,967	2,772,969	917,630	4,882,000	75.60	95
MONTANA	575,509	479,006	96,503	422,148	153,361	795,000	72.39	93
NEBRASKA	1,246,659	722,433	524,226	928,091	318,568	1,570,000	79.41	100
NEVADA	697,837	220,144	477,693	477,532	220,305	672,000	103.84	103
NEW HAMPSHIRE	673,049	638,069	34,980	508,742	164,307	882,000	76.31	102
NEW JERSEY	6,335,199	6,191,747	143,452	4,722,525	1,612,674	7,325,000	86.49	105
NEW MEXICO	813,090	708,981	104,109	567,112	245,978	1,220,000	66.65	90
NEW YORK	13,065,378	11,909,994	1,155,384	9,417,851	3,647,527	17,666,000	73.96	96
NORTH CAROLINA	3,906,567	2,082,112	1,824,455	2,950,454	956,113	5,611,000	69.62	92
NORTH DAKOTA	499,587	361,032	183,555	366,164	133,423	653,000	76.51	100
OHIO	7,784,619	5,884,638	1,899,981	5,904,732	1,879,887	10,781,000	72.21	96
OKLAHOMA	2,226,430	1,926,750	299,680	1,637,968	588,462	2,913,000	76.43	95
OREGON	1,884,852	1,380,185	504,667	1,362,588	522,294	2,475,000	76.16	95
PENNSYLVANIA	9,519,098	7,726,453	1,792,645	7,225,456	2,293,642	11,732,000	81.14	99
RHODE ISLAND	698,115	698,115	0	524,983	173,132	935,000	74.66	99
SOUTH CAROLINA	1,981,232	1,431,983	549,249	1,487,452	493,780	2,938,000	67.43	90
SOUTH DAKOTA	497,631	393,847	103,784	369,578	128,503	691,000	72.02	95
TENNESSEE	3,063,810	2,559,156	504,654	2,321,539	742,271	4,390,000	69.79	93
TEXAS	10,245,165	8,370,322	1,874,843	7,393,901	2,851,264	13,124,000	78.06	97
UTAH	992,768	956,877	35,891	732,790	259,978	1,327,000	74.81	100
VERMONT	348,645	300,529	48,116	254,123	94,522	490,000	71.15	104
VIRGINIA	3,671,932	2,887,694	784,238	2,733,317	938,615	5,177,000	70.93	95
WASHINGTON	2,998,511	2,220,664	777,847	2,167,694	830,817	3,822,000	78.45	97
WEST VIRGINIA	1,085,548	937,733	147,815	832,568	252,980	1,865,000	58.21	89
WISCONSIN	3,393,369	2,374,573	1,018,796	2,524,884	868,485	4,698,000	72.23	100
WYOMING	346,548	326,057	20,491	244,631	101,917	433,000	80.03	95
UNITED STATES	169,026,948	137,478,347	31,593,601	124,742,739	44,284,209	218,998,000	77.18	97

[1] Includes 381,184 service telephones (non-company telephones for which switching service is provided).
[2] Households with service are the sum of residence main, apartment house PBX and residence service main telephones, and other residence PBX systems. There tends to be a slight overstatement of the proportion of households with telephone service.

Source: American Telephone and Telegraph Company

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Note: These areas are generally larger than the corporate areas of the cities they serve.

Exchange or Zone Area	Code*	Telephones			Population (in Thousands)	Telephones Per 100 Pop.
		Residence	Business	Total		
Abilene, Texas	A	55,576	22,721	78,297	115	68.3
Akron, Ohio	A	257,565	82,913	340,478	451	75.5
Albany, Georgia	A	55,500	18,355	73,855	103	71.7
Albany, N.Y.	A	98,783	71,886	170,643	197	86.4
Albuquerque, N.M	A	201,279	78,252	279,531	459	60.9
Alexandria, Louisiana	A	52,974	20,006	72,980	109	66.8
Alexandria, Va.	A	187,461	54,404	241,865	289	83.8
Allentown, Pa.	A	105,930	41,332	147,262	164	90.0
Altoona, Pa.	A	46,198	12,280	58,478	80	73.0
Amarillo, Tex.	A	96,322	38,766	135,088	163	82.9
Anaheim, Calif.	C	153,523	62,211	215,734	267	80.9
Anchorage,	A	N.A.	N.A.	122,066	198	61.7
Anderson, Ind.	A	51,047	14,512	65,558	90	72.7
Ann Arbor, Mich	A	77,238	46,184	123,422	124	99.4
Appleton, Wis.	A	48,901	18,556	67,457	87	77.4
Arlington, Mass.	A	31,786	4,124	35,910	59	80.9
Arlington, Texas	C	81,139	22,320	103,459	144	71.7
Arlington Heights, Ill.	C	82,901	21,304	104,206	145	71.9
Arvada, Colorado		(Included in Denver, Colorado)				
Asheville, N.C.	A	52,173	23,411	75,584	89	85.2
Athens, Georgia	A	42,998	22,073	65,071	78	84.0
Atlanta, Georgia	A	587,277	300,199	887,476	966	91.9
Augusta, Georgia	A	103,988	41,375	145,381	218	66.8
Aurora, Colorado		(Included in Denver, Colorado)				
Aurora, Illinois	C	71,591	23,248	94,838	124	76.7
Austin, Texas	A	179,024	97,960	276,984	425	66.2
Bakersfield, Calif.	A	126,000	44,554	170,554	246	69.4
Baltimore, Maryland	A	1,015,755	337,296	1,353,051	1,673	80.9
Baton Rouge, La.	A	205,915	78,418	284,331	387	77.6
Bayonne, N.J.	B	39,233	48,712	48,712	71	68.8
Beaumont, Texas	A	66,966	28,283	95,239	132	72.3
Belleville, Ill.	A	44,692	9,807	54,499	82	66.3
Bellevue, Wash.	A	20,813	61,633	82,446	38	93.8
Berkley, Calif.		(Included in East Bay Exchange)				
Berwyn, Illinois	A	37,209	5,406	42,615	62	69.0

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Bethlehem, Pa.	A	61,098	22,172	83,270	96	86.7
Billings, Montana	A	55,383	23,489	78,872	98	80.6
Binghamton, N.Y.	A	61,332	27,299	88,631	122	72.6
Birmingham, Alabama	A	325,493	125,047	450,540	550	81.9
Bloomington, Minn.		(Included in Minneapolis-St. Paul)				
Boise, Idaho	A	85,432	39,225	124,657	142	87.5
Boston, Mass	C	274,736	234,798	509,534	639	79.8
Boulder, Colo.		(Included in Denver, Colorado)				
Bridgeport, Conn.	A	127,882	53,562	181,444	241	75.4
Bristol, Conn.	A	37,242	7,087	44,329	68	65.5
Brockton, Mass.	A	55,739	16,923	72,662	127	57.3
Brookline, Mass.	C	55,754	29,164	84,918	90	94.7
Brownsville, Texas	A	28,817	12,679	41,496	83	50.3
Buena Park, Calif.	C	36,569	14,254	50,823	72	71.0
Buffalo, N.Y.	A	309,248	115,632	424,880	742	57.3
Cambridge, Mass	A	55,047	56,451	111,498	122	91.4
Camden, N.J.	A	51,573	22,199	73,772	91	81.2
Canton, Ohio	A	96,963	29,787	126,750	178	71.4
Cedar Rapids, Iowa	A	93,000	32,900	125,900	159	79.3
Champaign, Ill	A	73,990	35,896	109,886	120	91.9
Charleston, S.C.	A	146,657	57,818	204,475	278	73.6
Charleston, W.Va.	A	121,449	52,847	174,296	258	67.5
Charlotte, N.C.	C	247,277	104,705	351,982	392	89.7
Chattanooga, Tenn.	A	184,118	60,679	244,797	331	73.9
Chesapeake, Va.		(Included in Norfolk, Virginia)				
Chester, Pa.	A	68,639	16,521	85,160	116	73.3
Chicago, Ill.	B	1,735,600	874,400	2,610,000	3,020	86.4
Chula Vista, Calif		(Included in San Diego Extended Area)				
Chicopee, Mass.	C	17,142	4,841	21,983	45	49.1
Cicero, Illinois	A	37,396	10,753	48,149	67	71.8
Cincinnati, Ohio	A	517,374	222,700	740,074	893	82.9
Clearwater, Fla.	A	154,200	45,981	200,181	256	78.3
Cleveland, Ohio	A	641,234	269,948	911,182	1,100	82.8
Cleveland Heights, Ohio		(Included in Cleveland, Ohio)				
Clifton, New Jersey		(Included in Passaic, New Jersey)				

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Colo. Springs, Colo.	A	151,753	59,063	210,816	322	65.4
Columbia, S.C.	A	185,194	86,424	271,618	329	82.6
Columbia, Texas	A	N.A.	N.A.	71,897	83	86.3
Columbus, Georgia	A	103,074	37,217	140,291	193	72.8
Columbus, Ohio	C	319,589	154,365	473,954	473	100.2
Concord, Calif	A	74,548	21,164	95,712	134	71.4
Corpus Christi, Texas	A	105,650	41,637	147,287	230	64.0
Costa Mesa, Calif.		(Included in Newport Beach, California)				
Council Bluffs, Iowa	A	41,100	10,200	51,300	73	70.7
Covington, Kentucky	A	98,440	21,983	120,423	198	60.9
Cranston, R.I.		(Included in Providence, Rhode Island)				
Dallas, Texas	C	534,588	275,333	809,921	1,065	76.0
Daly City, Calif.		(Included in San Francisco, California)				
Danbury, Conn.	A	57,310	19,387	76,697	87	88.2
Danville, Va.	A	36,733	9,908	46,641	80	58.7
Davenport, Iowa	A	88,900	28,200	117,100	152	77.2
Daytona, Fla.	A	79,291	31,370	110,661	145	76.3
Dayton, Ohio	A	272,779	98,717	371,496	474	78.4
Dearborn, Mich.		(Included in Detroit, Michigan)				
Dearborn Heights, Mich.		(Included in Detroit, Michigan)				
Decatur, Illinois	A	73,924	22,290	96,214	105	91.9
Denton, Texas	A	N.A.	N.A.	36,751	59	62.3
Denver, Colorado	A	832,987	353,532	1,186,519	1,525	77.8
Des Moines, Iowa	A	190,500	83,500	274,000	288	95.0
Des Plaines, Illinois	A	58,457	40,203	93,660	129	76.4
Detroit, Michigan	A	1,114,404	396,139	1,510,543	1,830	82.5
Dubuque, Iowa	A	39,700	15,800	55,500	87	63.7
Duluth, Minnesota	A	22,700	22,900	69,700	129	71.8
Durham, N.C.	A	77,340	34,103	111,443	146	76.5
East Bay Exchange, Calif	A	383,689	187,819	571,508	647	88.2
East Hartford, Conn.		(Included in Hartford Exchange)				
East Lansing, Mich.		(Included in Lansing, Michigan)				
East Orange, N.J.	A	103,548	29,982	133,530	146	91.3
East St. Louis, Ill.	A	51,931	9,548	61,479	97	63.5
El Cajon, Calif.	A	(Included in San Diego Extended Area)				
El Paso, Texas	A	184,718	77,992	262,710	427	61.6
Elgin, Illinois	A	53,976	15,922	69,898	89	78.3

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Elizabeth, N.J.	A	67,313	28,826	96,139	114	84.3
Elmhurst, Ill.	A	65,961	20,200	86,161	117	73.9
Elyria, Ohio	A	42,337	16,082	58,419	89	65.6
Erie, Pennsylvania	A	99,176	41,147	140,323	194	72.4
Escondido, Calif.	A	60,978	16,639	77,617	82	95.2
Euclid, Ohio		(Included in Cleveland, Ohio)				
Eugene-Springfield, Ore.	A	42,257	105,700	147,957	222	66.6
Evanston, Illinois	B	60,056	24,644	84,700	82	103.7
Evansville, Indiana	A	93,421	34,977	128,398	156	82.2
Everett, Wash	A	19,664	47,073	66,737	95	70.6
Fairbanks, Alaska	A	N.A.	N.A.	31,618	60	52.7
Fairfield, Calif.	A	34,415	12,007	46,422	66	70.0
Fairfield, Conn.	C	25,081	6,128	31,209	38	83.2
Fall River, Mass.	A	64,131	15,273	79,404	148	53.6
Fargo, N.D.-Moorehead, Mn.	A	71,700	31,600	103,300	126	82.3
Farmington, Michigan	C	46,718	14,188	60,906	82	74.7
Farmington Hills, Michigan		(Included in Farmington, Michigan)				
Fayetteville, N.C.	A	99,957	41,309	141,266	248	56.9
Flint, Michigan	A	176,127	52,709	228,836	287	79.8
Florissant, Mo.	C	53,948	5,774	59,722	100	59.9
Ft. Lauderdale, Fla.	A	294,387	96,519	390,906	520	75.2
Fort Collins, Colo.	A	41,607	19,556	61,163	88	69.3
Fort Smith, Arkansas	A	41,229	17,796	59,025	79	75.1
Fort Wayne,, Indiana	A	120,873	54,588	175,461	249	70.6
Fort Worth, Texas	C	247,650	99,488	347,138	474	73.2
Fountain Valley, Calif.		(Included in Huntington Beach, California)				
Framingham, Mass.	A	46,007	17,357	63,364	87	73.0
Fremont City, Calif.	A	104,499	22,480	126,979	203	62.7
Fresno Calif.	A	186,967	67,305	254,272	333	76.4
Fullerton, Calif.	C	58,036	32,770	90,806	84	108.1
Gadsden, Alabama	A	42,112	10,760	52,872	82	64.2

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Gainesville, Fla.	A	58,647	31,537	90,184	120	75.3
Galveston, Texas	A	36,777	18,838	55,615	73	76.3
Garden Grove, Calif.	C	68,216	14,819	83,035	115	72.1
Garland, Texas	C	N.A.	N.A.	76,285	119	64.1
Gary, Indiana	A	107,964	20,495	128,459	184	69.8
Gastonia, N.C.	A	51,099	14,138	65,237	84	77.3
Glendale, Arizona	(Included in Phoenix, Arizona)					
Glendale, Calif	(Included in Los Angeles Extended Area)					
Grand Prairie, Texas	C	40,683	20,187	60,870	70	86.7
Grand Rapids, Mich.	A	224,126	76,697	300,823	353	85.1
Granite City, Ill.	A	37,388	12,195	49,583	67	73.6
Great Falls, Montana	A	44,015	17,005	61,020	85	71.5
Green Bay, Wisconsin	A	69,828	27,157	96,985	123	78.8
Greensboro, N.C.	A	142,418	55,979	198,397	219	90.8
Greenville, S.C.	A	124,179	49,065	173,244	238	72.8
Hamden, Conn.	(Included in New Haven, Connecticut)					
Hamilton, Ohio	A	62,977	18,314	81,291	122	66.5
Hammond, Indiana	A	58,955	13,332	72,287	107	67.5
Hampton, Va.	(Included in Newport News, Virginia)					
Harrisburg, Pa.	A	140,179	66,573	206,752	208	99.4
Hartford, Conn.	A	200,326	121,061	321,387	364	88.3
Hayward, Calif.	A	106,737	35,662	142,399	209	68.2
Hialeah, Fla.	(Included in Miami, Florida)					
High Point, N.C	A	51,800	22,140	73,940	108	68.6
Hollywood, Fla.	A	178,812	37,859	216,671	285	76.0
Honolulu, Hawaii	A	212,196	149,705	361,901	384	94.2
Houston, Texas	A	868,242	491,252	1,359,494	1,675	81.2
Huntington, W. Va.	A	66,689	23,759	90,448	145	62.5
Houma, Louisiana	A	35,250	11,650	46,900	82	57.3
Huntington Beach, Calif.	C	117,557	19,497	137,054	159	86.2
Huntsville, Alabama	A	98,272	47,452	145,724	184	79.2
Independence, Mo.	C	52,895	10,408	63,303	153	41.5
Indianapolis, Ind.	C	483,394	186,645	670,039	763	87.8

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Irving, Texas	A	N.A.	N.A.	78,615	116	67.8
Jackson, Miss.	A	141,106	64,209	205,315	252	81.5
Jacksonville, Fla.	D	302,858	116,061	418,919	555	75.5
Janesville, Wis.	A	33,189	9,817	43,006	64	67.2
Jersey City, N.J.	A	136,591	46,457	183,048	275	66.6
Joliet, Illinois	A	74,559	22,808	97,367	131	74.4
Kalamazoo, Mich.	A	107,011	44,542	151,553	179	84.8
Kansas City, Kansas	C	124,555	46,072	170,627	209	81.5
Kansas City, Mo.	C	197,702	144,856	342,558	342	100.1
Kenner, La.	A	60,742	9,757	70,499	106	66.5
Kenosha, Wisconsin	A	47,637	13,627	61,264	100	61.3
Kettering, Ohio		(Included in Dayton, Ohio)				
Knoxville, Tenn.	A	150,584	63,836	214,420	289	74.3
Lafayette, La.	A	61,174	25,836	87,010	110	79.5
Lake Charles, La.	A	60,179	20,839	81,018	106	76.2
Lakewood, Colo.		(Included in Denver, Colorado)				
Lakewood, Ohio		(Included in Cleveland, Ohio)				
Lancaster, Pa.	A	77,176	32,913	110,089	119	92.4
Lansing, Michigan	A	143,512	82,149	225,661	249	90.6
Laredo, Texas	A	29,046	14,246	43,292	85	50.9
Las Vegas, Nevada	A	255,276	114,535	369,811	380	97.3
Lawrence, Mass.	A	57,692	20,152	77,844	122	63.7
Lawton, Oklahoma	A	44,964	11,869	56,833	102	55.9
Lexington, Kentucky	A	110,885	52,229	163,114	210	77.7
Lima, Ohio	A	35,907	16,956	52,863	93	57.1
Lincoln, Nebraska	A	110,600	50,300	160,900	192	83.7
Little Rock, Arkansas	A	149,834	72,785	222,619	264	84.4
Livonia, Michigan	C	140,797	36,925	177,722	271	65.7
Long Beach, Calif.		(Included in Los Angeles Extended Area)				
Longview, Texas	A	47,132	16,787	63,919	87	73.7
Lorain, Ohio	A	40,182	10,458	50,640	81	62.5
Los Angeles, Calif. Extended Area	A	4,044,614	1,816,929	5,861,543	6,784	86.4
Louisville, Kentucky	A	422,930	140,928	563,858	792	71.2
Lowell, Mass.	A	80,503	20,094	100,597	169	59.5
Lubbock, Texas	A	113,761	48,099	161,860	203	79.6
Lynchburg, Va.	A	58,460	19,698	78,158	118	66.0

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Lynn, Mass.	A	54,616	18,826	73,442	107	68.6
Macon, Georgia	A	88,327	29,389	117,716	153	76.9
Madison, Wisconsin	A	124,641	71,669	196,310	211	93.2
Malden, Mass.	A	30,790	6,835	37,625	55	67.9
Manchester, N.H.	A	55,475	23,912	79,387	127	62.5
Mansfield, Ohio	A	42,780	17,211	59,991	115	52.1
Medford, Mass.	C	27,716	5,552	33,268	61	54.8
Memphis, Tenn.	A	455,818	143,242	599,060	790	75.9
Meriden, Conn.	A	31,543	9,138	40,681	64	64.0
Mesa, Arizona		(Included in Phoenix, Arizonia)				
Miami, Florida	A	695,177	323,837	1,019,014	1,151	88.5
Miami Beach, Florida		(Included in Miami, Florida)				
Midland, Texas	C	48,630	22,312	70,942	83	85.4
Middletown, Ohio	A	34,327	11,636	45,963	67	68.6
Midwest City, Okla.		(Included in Oklahoma City, Oklahoma)				
Milford, Conn.	A	30,963	8,993	39,956	54	74.1
Milton, Mass.	C	30,092	4,621	34,713	54	64.8
Milwaukee, Wisconsin	A	598,730	249,651	848,381	1,063	79.8
Minneapolis-St. Paul, Minn.	A	1,134,600	446,300	1,580,900	1,972	80.2
Mobile, Alabama	A	176,653	55,158	231,811	340	68.1
Modesto, Calif.	A	89,568	28,183	117,751	167	70.4
Moline, Ill.	A	40,895	12,257	53,150	59	89.6
Monroe, Louisiana	A	67,259	23,293	90,552	130	69.7
Montgomery, Alabama	A	113,304	40,513	153,817	182	84.5
Mt. Vernon, N.Y.	A	101,380	22,064	123,444	160	77.0
Mountain View, Calif.	C	49,246	26,748	75,994	85	89.0
Muncie, Indiana	A	55,422	22,131	77,553	107	72.4
Muskegon, Mich.	N.A.	60,466	20,692	81,158	131	61.8
Nashville, Tenn.	A	283,806	121,985	405,791	499	81.4
Nashua, N.H.	A	45,456	19,871	65,327	98	66.7

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
New Bedford, Mass.	A	72,894	20,045	92,939	149	62.4
New Britain, Conn.	A	47,163	14,199	61,362	96	63.7
New Haven, Conn.	A	191,729	76,812	268,541	324	82.9
New Orleans, La.	A	532,858	194,193	727,051	971	74.9
New Rochelle, N.Y.	D	55,321	14,007	69,328	71	97.0
New York, New York	B	3,970,470	1,966,359	5,936,829	7,345	80.8
Newark, New Jersey	A	209,620	112,903	322,523	406	79.4
Newport Beach, Calif.	C	86,987	34,150	121,137	114	106.3
Newport News, Metro. Area, Va.	C	148,412	60,213	208,625	314	66.5
Newton, Mass.	D	57,938	17,483	75,421	92	81.6
Niagra Falls, N.Y.	A	46,263	18,140	64,403	103	62.6
Norfolk, Metro Area, Va.	C	344,941	108,971	453,912	696	65.2
Norman, Okla.		(Included in Oklahoma City, Oklahoma)				
North Little Rock, Ark.		(Included in Little Rock, Arkansas)				
Norwalk, Conn.	D	49,069	18,725	67,794	82	82.8
Oak Lawn, Ill.	A	103,505	18,794	122,299	191	64.0
Oak Park, Ill.	B	45,028	10,675	55,703	64	87.3
Oakland, Calif.		(Included in East Bay Exchange)				
Oceanside, Calif.	C	50,536	13,229	63,765	115	55.6
Odessa, Texas	A	64,782	24,312	89.094	115	77.5
Ogden, Utah	A	68,339	20,772	89,111	146	61.2
Oklahoma City, Okla.	C	438,334	177,736	616,070	735	83.8
Omaha, Nebraska	A	341,400	113,400	454,800	547	83.1
Ontario, Calif.	A	92,859	22,010	114,869	133	86.7
Orange Calif.	C	86,217	30,076	116,293	139	83.6
Orlando, Florida	A	168,248	79,284	247,532	330	75.1
Oshkosh, Wisconsin	A	82,438	13,889	46,327	65	71.5
Overland Pk, Kansas	C	106,562	25,068	131,630	154	85.5
Owensboro, Kentucky	A	34,244	12,857	47,101	70	67.8
Oxnard, Calif	A	86,236	26,792	113,028	163	69.4
Palo Alto, Calif.	A	83,495	72,886	156,381	145	108.0
Parma, Ohio	A	60,385	10,401	70,786	113	62.5

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Pasadena, Calif.		(Included in Los Angeles Extended Area)				
Pasadena, Texas		(Included in Houston, Texas)				
Passaic, New Jersey	A	106,620	35,284	141,904	175	80.9
Paterson, New Jersey	A	96,551	30,836	127,387	185	68.8
Pawtucket, R.I.	A	72,780	19,340	92,120	153	60.3
Pensacola, Florida	A	109,383	37,630	147,013	220	66.9
Peoria, Ill.	A	146,857	50,774	197,631	210	94.3
Petersburg, Va.	A	46,007	12,433	58,440	94	62.3
Philadelphia, Pa.	B	1,237,446	445,895	1,683,341	1,815	92.7
Phoenix, Arizona	A	686,894	255,953	942,847	1,321	71.4
Pine Bluff, Arkansas	A	38,451	12,315	50,766	83	61.5
Pittsburgh, Pa.	A	554,393	255,800	810,193	886	91.4
Plano, Texas	C	N.A.	N.A.	39,578	65	61.2
Pittsfield, Mass.	A	32,191	13,704	45,895	61	75.5
Pomona, Calif.	A	149,308	47,820	197,128	219	90.0
Pompano Beach, Fla.	A	147,202	30,692	177,894	224	79.4
Pontiac, Michigan	A	91,703	31,751	123,454	147	84.3
Port Arthur, Texas	A	42,253	11,482	53,735	86	62.5
Portland, Maine	C	32,238	22,698	54,936	63	87.2
Portland, Oregon	A	169,405	323,767	493,172	601	82.1
Portsmouth, Va.		(Included in Norfolk, Virginia)				
Provo-Orem, Utah	A	53,765	18,816	72,581	125	58.1
Providence, R.I.	A	188,215	89,611	277,826	369	75.3
Pueblo, Colorado	A	55,445	19,197	74,642	128	58.3
Quincy, Illinois	A	34,353	11,689	46,042	55	83.4
Quincy, Mass.	A	48,183	16,284	64,467	94	68.5
Racine, Wisconsin	A	64,278	21,654	85,932	136	63.1
Raleigh, N.C.	A	137,685	61,434	199,119	226	88.2
Reading, Pa.	A	121,785	41,019	162,804	193	84.3
Redwood City, Calif.	A	43,511	17,737	61,248	79	77.9
Reno, Nevada	A	91,609	47,609	139,218	165	84.4
Richardson, Texas	C	57,292	27,257	84,549	80	105.2
Richmond, Calif.	A	69,899	22,843	92,742	133	70.0
Richmond, Va.	A	270,483	117,733	388,196	499	77.8
Riverside, Calif.	C	126,808	38,181	164,989	221	74.5
Roanoke, Va.	A	98,528	31,382	129,910	199	65.3

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Rochester, Minn.	A	42,500	30,200	72,700	78	93.4
Rochester, N.Y.	A	240,492	120,327	360,819	540	66.8
Rockford, Ill.	A	144,772	45,629	190,401	218	87.2
Rock Island, Ill.	A	44,983	11,964	56,947	66	85.8
Rome, Georgia	A	42,054	12,767	54,821	75	72.6
Roseville, Mich.		(Included in Warren, Michigan)				
Royal Oak, Michigan	A	156,555	50,502	207,057	259	80.0
Sacramento, Calif.	C	255,405	157,265	512,670	633	81.0
Saginaw, Michigan	A	102,054	30,093	132,147	177	74.9
St. Clair Shores, Mich.		(Included in Warren, Michigan)				
St. Joseph, Missouri	A	48,477	14,332	62,809	94	66.9
St. Louis, Missouri	C	379,427	194,102	573,529	662	86.6
St. Paul, Minnesota		(Included in Minneapolis-St. Paul, Minnesota)				
St. Petersburg, Fla.	A	218,183	71,172	289,355	468	61.8
Salem, Oregon	A	31,042	77,763	108,805	152	71.7
Salinas, Calif.	A	49,460	17,582	67,042	93	72.0
Salt Lake City, Utah	A	351,616	136,796	488,412	621	78.7
San Angelo, Texas	A	N.A.	N.A.	58,173	80	72.7
San Antonio, Texas	C	296, 634	116,858	413,492	667	62.0
San Bernardino, Calif.	C	71,067	30,461	101,528	142	71.5
San Diego, Calif. Extended Area	A	769,806	273,889	1,043,695	1,289	81.0
San Francisco, Calif.	A	460,591	354,929	815,520	734	111.2
San Jose, Calif.	A	434,759	166,821	601,580	820	73.4
San Mateo, Calif.	A	94,087	33,302	127,389	148	86.2
Santa Ana, Calif.	C	299,323	149,937	449,260	455	98.8
Santa Barbara, Calif.	A	93,562	42,635	136,197	151	90.1
Santa Clara, Calif.		(Included in San Jose, California)				
Santa Rosa, Calif.	A	74,155	24,793	98,948	126	78.8

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Sarasota, Fla.	A	89,548	31,961	121,509	142	85.6
Savannah, Georgia	A	107,861	37,335	145,196	212	68.5
Schenectady, N.Y.	A	99,287	32,638	131,925	174	75.8
Scottsdale, Ariz.		(included in Phoenix, Arizona)				
Scranton, Pa.	A	67,664	24,638	92,302	123	75.3
Seattle, Washington	A	234,696	399,276	633,972	683	92.8
Shreveport, La.	A	156,395	53,897	210,292	293	71.8
Simi, California	A	39,336	5,811	45,147	86	52.5
Sioux City, Iowa	A	56,900	20,500	77,400	95	81.5
Sioux Falls, S.D.	A	55,700	22,700	78,400	94	83.4
Skokie, Illinois	A	103,984	41,322	145,306	143	101.3
Somerville, Mass.	C	38,598	8,455	47,053	87	54.4
South Bend, Ind.	A	100.418	39,458	139,876	179	78.2
Southfield, Mich.	C	84,746	49,695	114,441	80	142.9
Spartanburg, S.C.	A	66,116	24,237	90,353	139	65.0
Spokane, Washington	A	59,495	163,334	222,829	316	70.5
Springfield, Ill.	A	104,060	48,879	152.939	148	103.6
Springfield, Mass	A	110,284	44,624	154,908	219	70.8
Springfield, Missouri	A	89,775	35,742	125, 517	165	76.1
Springfield Ohio	A	58,629	18,228	76,857	112	68.7
Stamford, Connecticut	C	75,284	38,290	113,574	119	95.2
Sterling Heights, Mich.		(Included in Warren, Michigan)				
Stockton, Calif.	A	106,406	36,185	142,591	221	64.5
Stratford, Conn.		(Included in Bridgeport, Connecticut)				
Sunnyvale, Calif.	C	63,030	51,794	114,824	114	100.9
Syracuse, New York	A	177,364	81,247	258,611	348	74.3
Tacoma, Washington	A	61,434	193,057	254,491	316	80.5
Tallahassee, Fla.	A	65,110	41,922	107,032	139	77.2
Tampa, Florida	A	266,662	120,338	387,000	642	60.3
Taunton, Mass.	A	28,281	7,076	35,357	63	56.6
Taylor, Michigan		(Included in Detroit, Michigan)				
Tempe, Arizona		(Included in Phoenix, Arizona)				
Terre Haute, Ind.	A	50,733	22,938	73,671	111	66.5

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
Texarkana, Texas	A	N.A.	N.A.	57,710	79	73.1
Thousands Oaks, Calif.	C	47,873	13,541	61,414	73	83.8
Toledo, Ohio	A	227,669	79,035	306,704	420	73.0
Topeka, Kansas	C	85,055	36,765	127,820	136	89.8
Torrance, Calif.		(Included in Los Angeles Extended Area)				
Trenton, New Jersey	A	66,783	37,973	104,756	146	72.0
Troy, Michigan	D	27,720	9,703	37,423	50	74.5
Troy, New York	A	63,368	16,279	79,647	142	56.2
Tucson, Arizona	A	228,274	80,992	309,266	450	68.8
Tulsa, Oklahoma	C	278,776	122,669	401,445	486	82.6
Tuscaloosa, Alabama	A	64,240	22,503	86,743	127	68.5
Tyler, Texas	A	55,491	19,758	75,249	99	77.9
Union City, New Jersey	A	100,157	30,379	130,536	169	77.1
Utica, New York	A	66,987	24,602	91,589	147	62.1
Valdusta, Georgia	A	28,932	11,780	40,172	57	71.0
Vallejo, Calif.	A	45,750	15,898	61,648	86	71.9
Ventura, Calif.	C	39,608	17,039	56,647	65	86.8
Vineland, New Jersey	C	36,273	11,685	47,958	69	69.7
Virginia Beach, Va.		(Included in Norfolk, Virginia)				
Waco, Texas	A	70,758	29,060	99,818	166	60.3
Waltham, Mass.	C	36,664	31,685	68,349	75	90.9
Warren, Mich.	A	242,650	70,846	313,496	447	70.2
Warren, Ohio	A	51,284	19,564	70,848	120	58.8
Warwick, R.I.	B	32,156	8,354	40,510	57	70.8
Washington, D.C.	B	507,008	531,368	1,038,376	695	149.5
Waterbury, Conn.	A	65,656	23,074	88,730	127	70.0
Waterloo, Iowa	A	55,000	18,100	73,100	96	76.4
Waukegan, Ill.	A	70,190	36,020	106,210	148	71.6
Waukesha, Wis.	A	34,324	14,716	49,040	66	74.5
Wauwatosa, Wis.		(Included in Milwaukee, Wisconsin)				
Weirton, W. Va.	A	33,056	8,179	41,235	71	58.1
West Allis, Wis.		(Included in Milwaukee, Wisconsin)				
West Hartford, Conn.		(Included in Hartford, Connecticut)				
West Haven, Conn.		(Included in New Haven, Connecticut)				
Westland, Michigan		(Included in Livonia, Michigan)				
Westminister, Calif.	C	64,849	22,635	87,484	137	63.8

*See page 26

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS
IN THE UNITED STATES - JANUARY 1, 1978

Exchange or Zone Area	Code*	Residence	Business	Total	Population (in Thousands)	Telephones Per 100 Pop.
West Palm Beach, Fla.	A	218,485	66,066	284,551	329	86.5
Weymouth, Mass.	A	29,307	5,140	34,447	65	53.0
Wichita, Kansas	C	159,109	78,201	237,310	267	89.0
Wheeling, W. Va.	A	49,119	19,230	68,349	101	67.5
Wichita Falls, Texas	C	56,399	24,395	80,794	120	67.6
Wilkes-Barre, Pa.	A	51,252	19,997	71,249	92	77.6
Wilmington, Del.	A	132,006	67,121	199,127	231	86.4
Wilmington, N.C.	A	56,669	18,267	74,936	98	76.8
Winston-Salem, N.C.	C	124,618	47,673	172,291	203	84.9
Winter Park, Fla.	A	97,191	35,138	132,329	180	73.4
Worcester, Mass.	A	98,695	43,122	141,817	199	71.2
Wyoming, Michigan		(Included in Grand Rapids, Michigan)				
Yonkers, New York	D	69,549	18,128	87,677	130	67.5
York, Pennsylvania	A	70,110	30,112	100,222	124	80.8
Youngstown, Ohio	A	149,032	38,193	187,225	259	72.2

*EXTENT OF EXCHANGE

Within City	Outside City	
Serves the entire city	Also serves beyond city	A
	Confined to city	B
Does not serve the entire city	But serves beyond city	C
	Confined to city	D

INTERCONNECT INDUSTRY STATISTICAL REVIEW 1980

compiled by
the
Research Department

NORTH AMERICAN TELEPHONE ASSOCIATION

Suite 360 · 1030 Fifteenth Street, N.W.
Washington, D.C. 20005
(202) 393-7444
(202) 466-2454

TABLE OF CONTENTS

SUBJECT	PAGE NUMBER
Industry Outlook	i
Number of Telephone Instruments in U.S.	3
Carrier Telephone Instrument Development	4
Business Telephone Instrument Development	5
Carrier Business Telephone Instrument Development	6
Interconnect Instrument Development	7
Interconnect Key - PBX Revenues	8
Projected Growth - Business Telephone Instrument Market	9
Interconnect Share - Total PBX/Key & Business Telephone Markets	10
U. S. Balance of Trade - Telephone and Switching Equipment	11
Telephone Development by States	12
Telephone Development in Large Exchange Areas	13

INDUSTRY OUTLOOK
1980

In 1979, as in previous years, there were slightly over six million telephone instruments installed in the United States by Bell and the independents. The reported growth of the carriers translates to 3.8% annually.

In our expanding telecommunications economy, this growth is the result of a very tightly controlled regimen on the part of the carriers. For example, about 21-22% of the installed telephone instrument base (thirty-seven million) is removed or disconnected every year, and is referred to as outward flow. Correspondingly, new sales, replacements, reinstallations and the like equal 25-26% (forty-four million) of the installed base and move inward each year. The resulting difference, which represents the net growth of the industry, has a residence/business ratio of 70/30%.

New carrier growth in business telephones represented 1,600,000 instruments installed in 1979. Notice in the chart on page six that there was a dramatic adjustment from 1969 to 1970. Contrary to what Bell and USITA would have you believe, this was not caused by the impact of interconnect sales, but rather by a strike of CWA workers and a minor economic recession. According to even the most optimistic estimates, there were only some 350,000 PBX and Key instruments sold by interconnect companies during 1969-1970. The probability is that the industry was actually much smaller.

The installation of business telephones by carriers has progressed at a fairly consistent pace since 1963, averaging 1,300,000 instruments per year until 1976, when competition really began to spur the industry. If one examines the near linear growth of both business and residential telephone installations by the carriers, it becomes apparent that the interconnect industry has generated its own market and stimulated rather than impacted the market for the carriers. "Penetration" is thus a misnomer, and "market share" the more appropriate term for the presently installed base of the interconnect companies.

Interconnect revenue projections are based on the best estimate of NATA, using information from a variety of public and private sources. By 1981, interconnect revenues are expected to exceed one billion dollars annually.

Bell system operating revenues for 1979 were $46.4 billion, while the independents showed $9.2 billion for the same period. The number of independent telephone companies declined in 1979 from 1,527 to 1,488.

In our calculation of systems and instruments, we have projected a gradual increase in the average PBX instrument to system ratio and average selling prices of instruments to reflect the trends we see in the market. The average PBX instrument to system ratio grows from 108 in 1980 to 125 in 1983, while the average selling price per instrument rises from $850 to $925 over the same period. The Key ratio remains constant at 13 instruments per system, while the average selling price per Key instrument rises from $950 to $1,250.

In reviewing the projected growth of the interconnect industry we have made some slight adjustments from previous years' calculations, adjustments which we feel are appropriate in view of the technological and economic forces acting upon the industry.

INTERCONNECT INDUSTRY STATISTICS

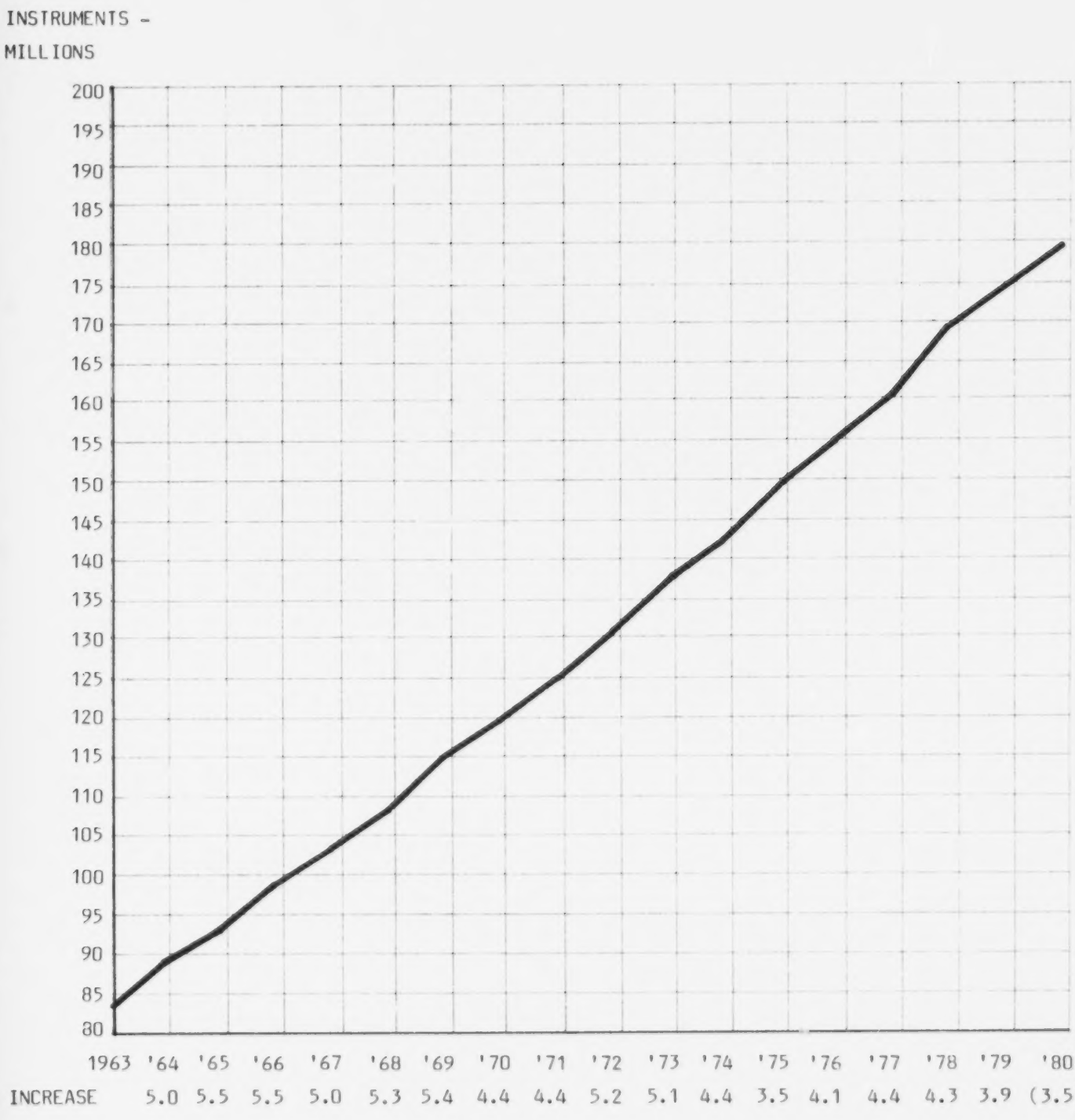
NUMBER OF TELEPHONE INSTRUMENTS IN THE U. S.
AT THE CLOSE OF 1979
(Projection through 1980)

YEAR	INSTRUMENTS
1980	181,678,720
1979	175,535,112
1978	169,026,948
1977	162,072,146
1976	155,173,288
1975	149,007,803
1974	143,971,452
1973	138,288,389
1972	131,602,500
1971	125,140,800
1970	120,221,000
1969	115,200,700
1968	109,255,600
1967	103,751,900
1966	98,785,600
1965	93,658,800
1964	88,787,400
1963	84,450,300
1962	80,971,700
1961	77,425,400
1960	74,341,100
1883	123,600

Projection for 1980 based on overall growth rate of 3.5%. Figures do not include telephones supplied by the interconnect industry.

Source: FCC Common Carrier Statistics.

CARRIER TELEPHONE INSTRUMENT DEVELOPMENT



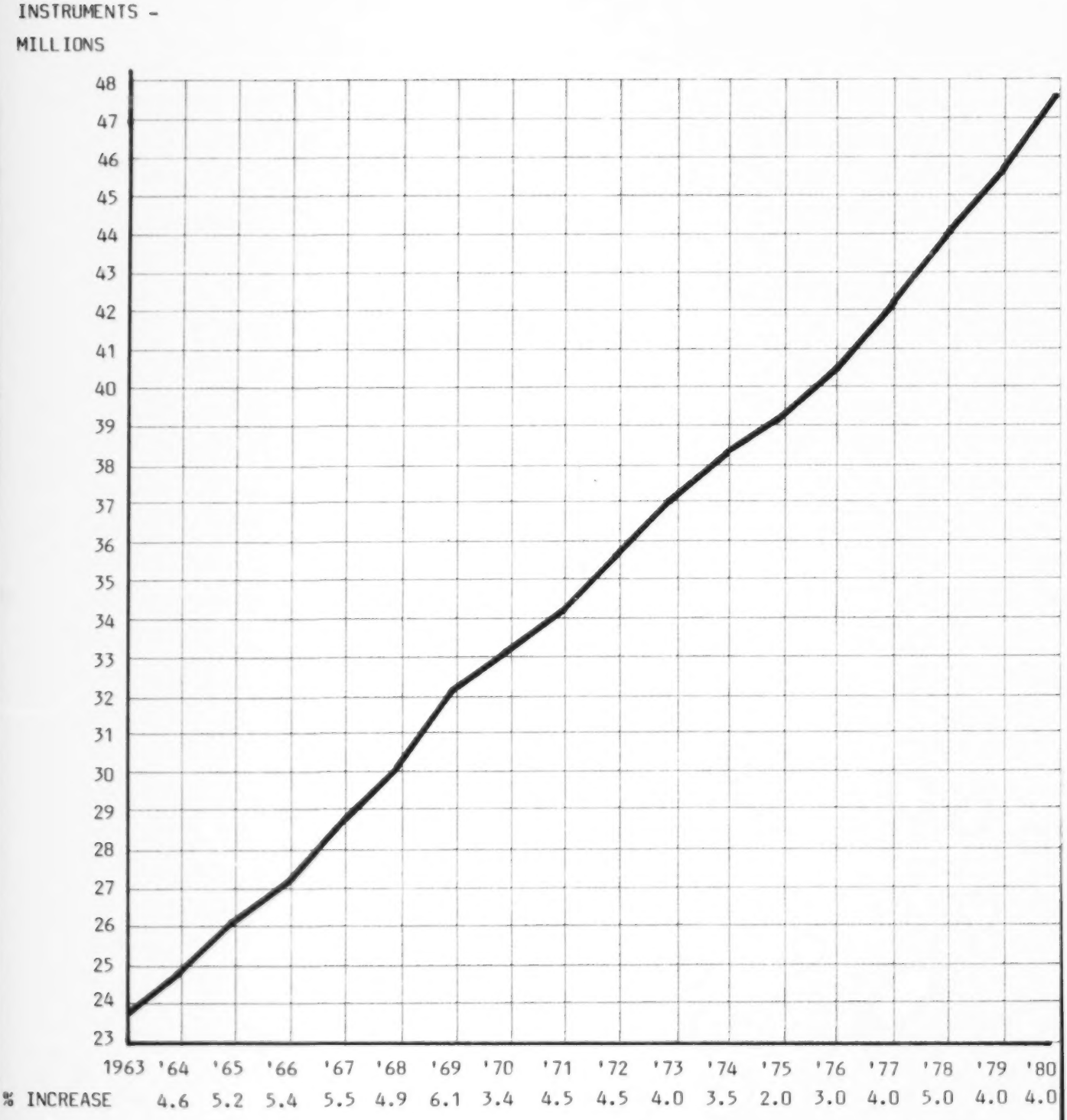
SOURCE: Table on Page 3.

BUSINESS TELEPHONE INSTRUMENT DEVELOPMENT 1970 - 1980

YEAR	CARRIER BUSINESS INSTRUMENTS/1	CARRIER PBX INSTRUMENTS/2	TOTAL INTERCONNECT INSTRUMENTS/3	TOTAL BUSINESS INSTRUMENTS
1980	47,790,000	20,627,192	4,540,000	52,330,000
1979	45,951,980	19,929,655	3,760,000	49,711,980
1978	44,284,209	19,183,731	2,893,000	47,177,209
1977	42,320,000	18,512,013	2,210,000	44,530,000
1976	40,682,000	18,009,989	1,700,000	42,382,000
1975	39,498,000	17,664,645	1,307,000	40,805,000
1974	38,748,513	17,445,110	1,005,000	39,753,513
1973	37,434,884	17,056,115	773,076	38,207,960
1972	35,989,500	16,410,298	595,000	36,584,500
1971	34,444,900	15,861,735	457,400	34,902,300
1970	33,304,800	15,572,683	351,846	33,656,646

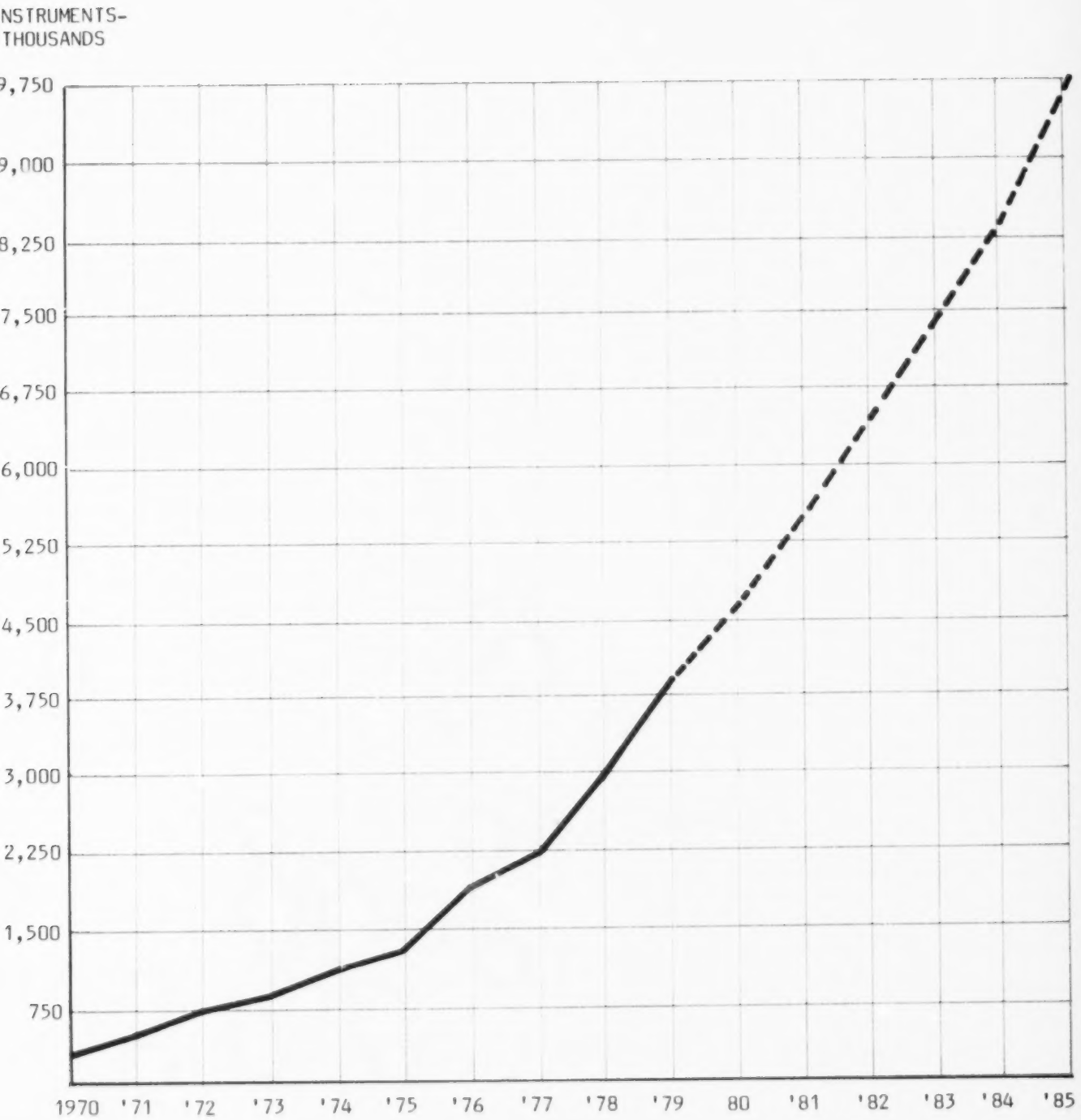
1. Source: FCC Common Carrier Statistics
2. Source: FCC Common Carrier Statistics & USITA Independent Telephone Statistics
3. Source: NATA

CARRIER BUSINESS TELEPHONE INSTRUMENT DEVELOPMENT



SOURCE: FCC Common Carrier Statistics.

INTERCONNECT INSTRUMENT DEVELOPMENT
(Projected through 1985)



SOURCE: Tables on Pages 5 & 9.

INTERCONNECT KEY - PBX REVENUES
(Projected)

YEAR/TYPE SYSTEM	NUMBER SYSTEMS	NUMBER INSTRUMENTS	NEW SALES ($000)	AMC-MAINTENANCE ($000)	TOTAL ($000)
1980					
EPABX/CBX	5,777	624,000	$ 530,400	$ 227,314	$ 757,714
KEY	12,000	156,000	148,200	63,514	211,714
TOTAL	17,777	780,000	678,600	290,828	969,428
1981					
EPABX/CBX	6,452	735,480	$ 643,545	$ 361,994	$1,005,539
KEY	13,271	172,520	168,207	94,616	262,823
TOTAL	19,723	908,000	811,752	456,610	1,268,362
1982					
EPABX/CBX	6,760	804,420	$ 723,978	$ 524,260	$ 1,248,238
KEY	13,583	176,580	176,580	127,868	304,448
TOTAL	20,343	981,000	900,558	652,128	1,552,686
1983					
EPABX/CBX	6,401	800,120	$ 740,111	$ 683,179	$ 1,423,290
KEY	12,606	163,880	204,850	189,092	393,942
TOTAL	19,007	964,000	944,961	872,271	$ 1,817,232

Source: NATA

NOTE: Key figures refer to "stand alone" systems only.

BUSINESS TELEPHONE INSTRUMENT MARKET
PROJECTED GROWTH

YEAR	1 CARRIER PROJECTED GROWTH (%)	2 CARRIER PBX-KEY INSTRUMENTS/2 (000) JAN 1	3 DEC 31	4 Yearly Inc.	5 CARRIER BUSINESS PHONES (LESS COIN) INSTRUMENTS (000) JAN 1	6 DEC 31	7 Yearly Inc.	8 INTERCONNECT PROJECTED GROWTH (%)	9 INTERCONNECT PBX-KEY INSTRUMENTS/2 (000) JAN 1	10 DEC 31	11 Yearly Inc.	12 PBX-KEY MARKET Columns 3+10	13 BUSINESS TEL MKT Columns 6+10
1980	4.0%	30,996	32,236	1,240	45,952	47,790	1,838	21%	3,760	4,540	780	36,776	52,330
1981	4.5%	32,236	33,687	1,451	47,790	49,941	2,151	20%	4,540	5,448	908	39,135	55,389
1982	5.0%	33,687	35,371	1,684	49,941	52,438	2,497	18%	5,448	6,429	981	41,800	58,867
1983	5.5%	35,371	37,316	1,945	52,438	55,322	2,884	15%	6,429	7,393	964	44,709	62,715
1984	6.0%	37,316	39,555	2,239	55,322	58,641	3,319	15%	7,393	8,502	1,109	48,057	67,143
1985	2.0%	39,555	40,346	791	58,641	59,814	1,173	15%	8,502	9,777	1,275	50,123	69,591
1986	3.0%	40,346	41,556	1,210	59,814	61,608	1,794	15%	9,777	11,244	1,467	52,800	72,852
1987	4.0%	41,556	43,218	1,662	61,608	64,072	2,464	15%	11,244	12,931	1,687	56,149	77,003
1988	5.0%	43,218	45,379	2,161	64,072	67,276	3,204	18%	12,931	15,259	2,328	60,638	82,535
1989	5.5%	45,379	47,875	2,496	67,276	70,976	3,700	18%	15,529	18,006	2,747	65,881	88,982
1990	6.0%	47,875	50,748	2,873	70,976	75,235	4,259	18%	18,006	21,247	3,241	71,995	96,482

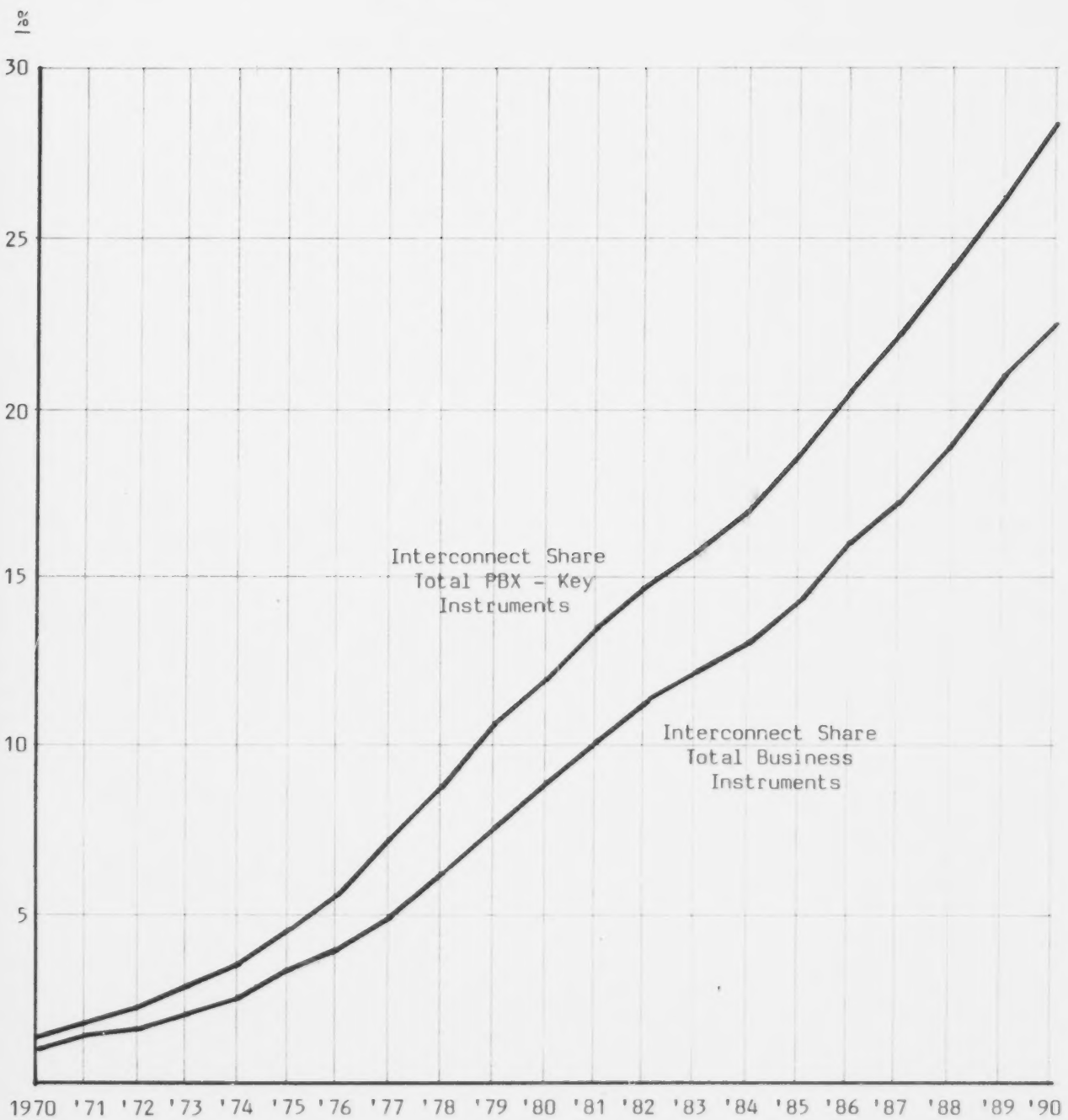
1. Based on similar growth patterns 1963 - 1979.

2.

MIX:	KEY	PBX
BELL	34%	66%
USITA	46%	54%
INTERCONNECT	20%	80%

Source: NATA

INTERCONNECT SHARE OF TOTAL PBX - KEY
& BUSINESS TELEPHONE MARKETS
(Projected through 1990)



SOURCE: Tables on Pages 5 & 9.

US BALANCE OF TRADE IN TELEPHONE AND TELEPHONE-SWITCHING EQUIPMENT

NET IMPORTS*	SWITCHING & SWITCHBOARD EQUIPMENT	TELEPHONE INSTRUMENTS	OTHER TELEPHONE APPARATUS	TOTAL
CANADA	$ 45,416,577	$ 4,755,517	$ 22,430,158	$ 72,602,252
SWEDEN	4,050,801	23,738	846,988	4,921,527
ISRAEL	8,061,239	67,440	494,691	8,623,370
JAPAN	47,966,569	10,639,371	23,963,555	82,569,495
CHINA (TAIWAN)	1,183,761	5,844,823	1,786,686	8,815,270
KOREA	263,208	6,388,721	2,622,678	9,274,607
FRANCE	2,248,132	31,448	203,528	2,483,108
SPAIN		1,919,030	306,182	2,225,212
OTHER	1,567,399	3,595,809	3,936,468	9,099,676
TOTAL	$ 110,757,686	$ 33,265,897	$ 56,590,934	$ 200,614,517

EXPORTS				
CANADA	$ 10,736,946	$ 2,405,136	$ 37,023,481	$ 50,165,563
CENTRAL & SOUTH AMERICA	30,713,014	5,910,849	47,116,009	83,739,872
WESTERN EUROPE	13,901,891	3,543,422	19,197,107	36,642,420
ITALY	5,925,329	501,720	2,846,360	9,273,409
ISRAEL	3,942,034	386,442	805,489	5,133,965
SAUDI ARABIA/EMIRATES/ EGYPT	15,607,090	1,139,770	34,978,673	51,725,533
PHILIPPINES	3,719,574	507,381	4,530,451	8,757,406
CHINA (TAIWAN)	10,744,454	38,035	13,389,801	24,172,290
HONG KONG	1,224,772	271,182	757,192	2,253,146
AUSTRALIA	1,261,287	136,025	2,501,527	3,898,839
AFRICAN CONTINENT	11,933,184	107,910	2,882,732	14,923,826
JAPAN	364,435	314,451	4,887,076	5,565,962
OTHER (INCLUDES IRAN)	7,302,932	2,171,697	38,472,980	47,947,604
TOTAL	$ 117,376,942	$ 17,434,015	$209,388,878	$ 344,199,835

These figures show a net US surplus for 1979 of $143,585,318. In addition, US Department of Commerce figures show that total imports of telephone and telegraph equipment accounted for only 3.5% of domestic US consumption in 1979, and project that in 1980 the US surplus will be maintained, and that the percentage share of imports in the domestic market will decline somewhat. (1980 US Industrial Outlook; pp. 258-259)

*Excluding articles assembled abroad from components produced in the United States.

Source: Electronic Industries Association

TELEPHONE DEVELOPMENT BY STATES
DECEMBER 31, 1979

DISTRIBUTION OF TELEPHONES

STATE	TOTAL NUMBER OF TELEPHONES	BY OWNERSHIP		BY TYPE OF SERVICE		RESIDENT POPULATION	TOTAL TELEPHONES PER 100 POPULATION	% HOUSEHOLDS WITH TELEPHONE SERVICE 2/
		BELL COMPANIES 1/	ALL OTHER	RESIDENCE	BUSINESS			
ALABAMA	2,528,060	2,092,447	435,613	1,934,496	593,564	3,789,000	66.72	91
ALASKA	260,000	0	260,000	143,000	117,000	404,000	64.36	89
ARIZONA	1,969,767	1,885,161	84,606	1,453,135	516,632	2,488,000	79.17	101
ARKANSAS	1,436,655	1,012,858	423,797	1,085,156	351,499	2,188,000	65.66	90
CALIFORNIA	20,164,330	15,669,761	4,494,569	14,335,528	5,828,802	22,914,000	88.00	99
COLORADO	2,318,023	2,279,133	38,890	1,647,659	670,364	2,808,000	82.55	98
CONNECTICUT	2,652,050	2,633,319	18,731	1,976,657	675,393	3,115,000	85.14	103
DELAWARE	519,808	519,808	0	379,774	140,034	582,000	89.31	103
DISTRICT OF COLUMBIA	1,090,982	1,090,982	0	518,574	572,408	652,000	167.33	103
FLORIDA	7,750,650	4,996,376	2,754,274	5,786,906	1,963,744	8,975,000	86.36	102
GEORGIA	4,088,760	3,510,381	578,379	3,032,114	1,056,646	5,140,000	79.55	95
HAWAII	690,600	0	690,600	455,796	234,804	925,000	74.66	107
IDAHO	691,261	546,225	145,036	508,889	182,372	919,000	75.22	98
ILLINOIS	10,097,307	8,365,588	1,731,719	7,553,863	2,543,444	11,229,000	89.92	100
INDIANA	4,135,253	2,659,382	1,475,871	3,155,596	979,657	5,420,000	76.30	95
IOWA	2,277,914	1,551,695	726,219	1,715,713	562,201	2,902,000	78.49	98
KANSAS	1,923,591	1,614,893	308,698	1,452,386	471,205	2,383,000	80.72	95
KENTUCKY	2,307,052	1,639,258	667,794	1,751,662	555,390	3,553,000	64.93	90
LOUISIANA	2,879,180	2,711,882	167,298	2,186,616	692,564	4,038,000	71.30	97
MAINE	793,039	695,605	97,434	612,666	180,373	1,101,000	72.03	102
MARYLAND	3,514,629	3,510,079	4,550	2,634,858	879,771	4,148,000	84.73	102
MASSACHUSETTS	4,550,934	4,546,917	4,017	3,319,531	1,231,403	5,769,000	78.89	100
MICHIGAN	7,244,774	6,316,023	928,751	5,514,554	1,730,220	9,227,000	78.52	101
MINNESOTA	3,130,455	2,448,539	681,916	2,306,604	823,851	4,082,000	76.69	100
MISSISSIPPI	1,535,738	1,459,206	76,532	1,186,035	349,703	2,439,000	62.97	86
MISSOURI	3,798,260	3,032,153	766,107	2,853,777	944,483	4,879,000	77.85	97
MONTANA	604,030	497,803	106,227	440,220	163,810	791,000	76.36	95
NEBRASKA	1,297,235	749,086	548,149	963,994	333,241	1,576,000	82.31	101
NEVADA	745,419	242,052	503,367	505,064	240,355	723,000	103.10	100
NEW HAMPSHIRE	700,873	663,549	37,324	530,122	170,751	896,000	78.22	103
NEW JERSEY	6,522,910	6,370,122	152,788	4,856,879	1,666,031	7,342,000	88.84	106
NEW MEXICO	860,829	743,899	116,930	597,756	263,073	1,254,000	68.65	91
NEW YORK	12,990,694	11,827,821	1,162,873	9,461,938	3,528,756	17,608,000	73.78	96
NORTH CAROLINA	4,109,771	2,188,119	1,921,652	3,102,437	1,007,334	5,629,000	73.01	95
NORTH DAKOTA	564,294	419,661	144,633	412,921	151,373	660,000	85.50	100
OHIO	8,011,597	6,033,846	1,977,751	6,080,981	1,930,616	10,731,000	74.66	97
OKLAHOMA	2,331,300	2,005,351	325,949	1,715,890	615,410	2,924,000	79.73	97
OREGON	1,995,342	1,446,561	548,781	1,435,229	560,113	2,567,000	77.73	95
PENNSYLVANIA	9,741,444	7,872,706	1,868,738	7,398,997	2,342,447	11,720,000	83.12	100
RHODE ISLAND	711,880	711,880	0	535,376	176,504	928,000	76.71	100
SOUTH CAROLINA	2,075,750	1,491,176	584,574	1,557,771	517,979	2,947,000	70.44	93
SOUTH DAKOTA	517,391	406,666	110,725	384,848	132,543	689,000	75.09	97
TENNESSEE	3,190,991	2,659,093	531,898	2,418,100	772,891	4,406,000	72.42	95
TEXAS	10,802,632	8,791,059	2,011,573	7,772,739	3,029,893	13,560,000	79.67	97
UTAH	1,042,347	1,003,060	39,287	774,376	267,971	1,398,000	74.56	99
VERMONT	363,557	313,003	50,554	267,652	95,905	498,000	73.00	106
VIRGINIA	3,824,367	3,002,716	821,651	2,844,384	979,983	5,212,000	73.38	96
WASHINGTON	3,198,078	2,350,675	847,403	2,303,575	894,503	4,003,000	79.89	97
WEST VIRGINIA	1,118,425	962,754	155,671	860,277	258,148	1,888,000	59.24	90
WISCONSIN	3,490,228	2,416,846	1,073,382	2,598,229	891,999	4,742,000	73.60	100
WYOMING	374,656	352,410	22,246	261,832	112,824	466,000	80.40	93
UNITED STATES	175,535,112	142,309,585	33,225,527	129,583,132	45,951,980	221,227,000	79.35	98

1/Includes 402,330 service telephones (non-company telephones for which switching service is provided).

2/Households with service are the sum of residence main, apartment house PBX and residence service main telephones, and other residence PBX systems. There tends to be a slight overstatement of the proportion of households with telephone service.

Source: American Telephone and Telegraph Company

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
Abilene, Texas	A	58,054	24,036	82,090	117	70.2	41,511
Akron, Ohio	A	261,418	83,020	344,438	457	75.4	175,082
Albany, Georgia	A	58,281	19,320	77,601	106	73.2	36,063
Albany, New York	A	96,022	72,708	168,730	196	86.0	75,974
Albuquerque, New Mexico	A	215,518	92,753	308,271	437	70.6	161,653
Alexandria, Louisiana	A	55,018	21,011	76,029	113	67.3	38,445
Alexandria, Virginia	A	275,893	163,462	439,355	448	98.0	192,414
Allentown, Pennsylvania	A	108,710	43,740	152,450	164	93.1	81,235
Altoona, Pennsylvania	A	47,018	12,970	59,988	80	75.0	30,969
Amarillo, Texas	A	101,513	40,433	141,946	166	85.8	67,077
Anaheim, California	C	156,034	67,082	223,116	267	83.6	111,788
Anchorage, Alaska	A	NA	NA	131,322	202	65.0	NA
Anderson, Indiana	A	51,989	14,909	66,898	90	74.1	32,777
Ann Arbor, Michigan	A	78,908	49,836	128,744	125	103.1	54,711
Appleton, Wisconsin	A	49,991	19,087	69,078	96	72.2	34,932-
Arlington, Massachusetts	A	32,266	4,252	36,518	59	61.6	23,100
Arlington, Texas	C	86,806	24,820	111,626	151	74.2	55,750
Arlington Hts, Illinois	C	84,773	22,639	107,412	148	72.7	47,926
Arvada, Colorado			(Included in Denver, Colorado)				
Asheville, North Carolina	A	53,040	24,281	77,321	90	85.7	37,905
Athens, Georgia	A	44,086	22,723	66,809	78	85.7	30,429
Atlanta, Georgia	A	593,585	314,245	907,830	979	92.7	386,700
Augusta, Georgia	A	109,269	43,199	152,468	220	69.5	70,046
Aurora, Colorado			(Included in Denver, Colorado)				
Aurora, Illinois	C	74,224	24,352	98,576	126	78.5	43,839
Austin, Texas	A	215,327	109,331	324,658	455	71.4	155,269
Bakersfield, California	A	132,897	46,913	179,810	259	69.4	98,328
Baltimore, Maryland	A	1,050,359	350,449	1,400,808	1,675	83.6	660,364
Baton Rouge, Louisiana	A	212,971	83,100	295,981	372	79.6	138,430
Bayonne, New Jersey	B	34,930	8,462	43,392	68	63.8	28,090
Baytown, Texas	A	NA	NA	43,284	55	79.0	21,831
Beaumont, Texas	A	70,300	30,208	100,508	133	75.9	50,725
Belleville, Illinois	A	46,699	10,305	57,004	82	69.3	30,489
Bellevue, Washington	A	64,820	22,782	87,602	93	93.9	32,070
Berkeley, California			(Included in East Bay Exchange)				
Berwyn, Illinois	A	38,110	5,768	43,878	64	68.1	25,085
Bethlehem, Pennsylvania	A	62,291	22,765	85,056	96	88.5	40,139
Billings, Montana	A	58,536	24,490	83,026	95	87.3	40,822
Biloxi, Mississippi	A	29,477	10,611	40,088	68	58.7	21,155
Binghamton, New York	A	60,151	27,240	87,391	121	72.4	47,732
Birmingham, Alabama	A	332,986	133,190	466,176	557	83.8	218,060
Bloomington, Minnesota			(Included in Minneapolis - St. Paul)				
Boise, Idaho	A	92,718	43,422	136,140	141	96.5	62,717
Boston, Massachusetts	C	293,805	240,482	534,287	639	83.6	185,032
Boulder, Colorado			(Included in Denver, Colorado)				
Bridgeport, Connecticut	A	129,946	54,026	183,972	242	76.0	92,503
Bristol, Connecticut	A	38,268	6,978	45,246	68	66.1	26,436
Brockton, Massachusetts	A	58,285	17,526	75,811	128	59.0	41,477
Brookline, Massachusetts	C	57,806	30,442	88,248	90	97.7	43,834
Brownsville, Texas	A	31,592	13,777	45,369	90	50.4	24,259
Buena Park, California	C	37,631	15,962	53,593	72	74.1	26,065
Buffalo, New York	A	302,128	107,786	409,914	737	55.7	246,128
Cambridge, Massacnusetts	A	56,812	56,967	113,779	123	92.3	51,654
Camden, New Jersey	A	51,375	24,017	75,392	89	84.6	31,122
Canton, Ohio	A	98,291	30,059	128,350	179	71.8	67,756

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
Cedar Rapids, Iowa	A	94,700	34,500	129,200	162	79.6	59,300
Champaign, Illinois	A	74,926	37,293	112,219	120	93.3	48,635
Charleston, South Carolina	A	150,565	62,517	213,082	281	75.8	94,301
Charleston, West Virginia	A	142,113	61,282	203,395	255	79.9	112,610
Charlotte, North Carolina	C	256,341	109,905	366,246	404	90.6	160,372
Chattanooga, Tennessee	A	190,073	63,577	253,650	337	75.3	123,581
Chesapeake, Virginia		(Included in Norfolk, Virginia)					
Chester, Pennsylvania	A	70,554	16,601	87,155	115	75.8	42,705
Chicago, Illinois	B	1,765,674	874,152	2,639,826	3,189	82.8	1,283,827
Chula Vista, California		(Included in San Diego Extended Area)					
Chicopee, Massachusetts	C	17,611	4,929	22,540	45	50.2	13,812
Cicero, Illinois	A	38,438	10,717	49,155	70	70.4	25,996
Cincinnati, Ohio	A	693,859	267,551	961,410	894	107.6	473,945
Clearwater, Florida	A	165,360	48,564	213,924	281	76.0	138,312
Cleveland, Ohio	A	653,646	270,631	924,277	1,107	83.5	443,561
Cleveland Hts, Ohio		(Included in Cleveland, Ohio)					
Clifton, New Jersey		(Included in Passaic, New Jersey)					
Colorado Spgs, Colorado	A	163,276	62,489	225,765	302	74.7	113,934
Columbia, South Carolina	A	193,073	91,394	284,467	333	85.6	124,154
Columbia, Missouri	A	NA	NA	74,448	86	86.3	41,951
Columbus, Georgia	A	103,834	38,283	142,117	195	72.8	64,635
Columbus, Ohio	C	324,062	160,344	484,406	474	102.3	211,927
Concord, California	A	76,607	22,050	98,657	137	71.9	54,907
Corpus Christi, Texas	A	112,008	44,628	156,636	250	62.7	75,369
Costa Mesa, California		(Included in Newport Beach, California)					
Council Bluffs, Iowa	A	41,300	10,600	51,900	73	71.6	25,600
Covington, Kentucky	A	100,588	22,932	123,520	196	63.1	69,042
Cranston, Rhode Island		(Included in Providence, Rhode Island)					
Dallas, Texas	C	547,590	291,145	838,735	1,084	77.4	362,532
Daly City, California		(Included in San Francisco, California)					
Danbury, Connecticut	A	59,047	20,662	79,709	91	87.5	40,881
Danville, Virginia	A	38,327	9,969	48,296	81	59.9	27,118
Davenport, Iowa	A	91,000	29,100	120,100	154	78.1	56,800
Daytona, Florida	A	85,692	32,241	117,933	160	73.7	64,264
Dayton, Ohio	A	275,795	99,849	375,644	476	78.9	180,479
Dearborn, Michigan		(Included in Detroit, Michigan)					
Dearborn Hts, Michigan		(Included in Detroit, Michigan)					
Decatur, Illinois	A	75,529	23,237	98,766	108	91.9	43,852
Denton, Texas	A	NA	NA	39,680	52	75.9	20,831
Denver, Colorado	A	940,507	413,867	1,354,374	1,466	92.4	683,876
Des Moines, Iowa	A	191,200	87,700	278,900	290	96.2	119,900
Des Plaines, Illinois	A	60,671	44,080	104,751	115	91.5	51,572
Detroit, Michigan	A	1,117,598	392,296	1,509,894	1,797	84.0	704,616
Dubuque, Iowa	A	40,300	16,400	56,700	88	64.1	28,700
Duluth, Minnesota	A	70,100	24,000	94,100	130	72.6	49,500
Durham, North Carolina	A	80,977	36,695	117,672	148	79.6	64,949
East Bay Exchange, California	A	391,875	197,280	589,155	652	90.4	318,512
East Hartford, Connecticut		(Included in Hartford, Connecticut)					
East Lansing, Michigan		(Included in Lansing, Michigan)					
East Orange, New Jersey	A	105,007	30,642	135,649	140	96.8	67,336
East St. Louis, Illinois	A	52,391	11,692	64,083	95	67.8	29,204
El Cajon, California		(Included in San Diego Extended Area)					
El Paso, California	A	188,798	70,811	259,609	427	60.8	135,851
Elgin, Illinois	A	55,987	16,343	72,330	92	78.9	32,989

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
Elizabeth, New Jersey	A	68,321	28,701	97,022	112	86.7	49,817
Elmhurst, Illinois	A	68,116	21,640	89,756	119	75.6	42,466
Elyria, Ohio	A	44,309	16,945	61,254	84	72.8	34,837
Erie, Pennsylvania	A	101,196	44,316	145,512	194	75.0	77,408
Escondido, California	A	65,801	18,420	84,221	87	97.1	47,121
Euclid, Ohio		(Included in Cleveland, Ohio)					
Eugne-Springfield, Oregon	A	111,376	45,589	156,965	234	67.1	70,195
Evanston, Illinois	B	60,605	24,241	84,846	82	103.5	37,675
Evansville, Indiana	A	95,909	36,666	132,575	156	85.1	63,715
Everett, Washington	A	50,416	22,713	73,129	95	77.0	43,913
Fairbanks, Alaska	A	NA	NA	25,034	60	41.7	NA
Fairfield, California Ø	A	36,843	13,294	50,137	69	72.6	14,666
Fairfield, Connecticut	C	25,647	6,412	32,059	38	84.8	15,442
Fall River, Massachusetts	A	67,196	15,698	82,894	149	55.6	49,977
Fargo, North Dakota - Moorehead, Minnesota	A	73,600	33,500	107,100	129	83.3	47,300
Farmington, Michigan	C	50,344	14,791	65,135	83	78.8	32,810
Farmington Hills, Michigan		(Included in Farmington, Michigan)					
Fayetteville, North Carolina	A	103,271	42,686	145,957	242	60.3	70,476
Flint, Michigan	A	177,557	51,336	228,893	283	80.9	109,973
Florissant, Missouri	C	55,577	6,372	61,949	100	61.7	32,655
Fort Collins, Colorado	A	46,233	20,597	66,830	89	75.3	34,988
Ft Lauderdale, Florida	A	313,050	105,977	419,027	447	93.7	218,838
Ft Myers, Florida	A	46,482	25,667	72,149	67	107.7	44,506
Fort Smith, Arkansas	A	42,893	18,811	61,704	80	77.3	32,942
Fort Wayne, Indiana	A	124,198	58,300	182,498	250	72.9	94,877
Fort Worth, Texas	C	258,735	106,415	365,150	488	74.9	171,997
Fountain Valley, California		(Included in Huntington Beach, California)					
Framingham, Massachusetts	A	47,519	17,875	65,394	88	74.7	32,775
Fremont City, California #	A	109,366	24,084	133,450	212	63.1	74,515
Fresno, California	A	197,480	72,158	269,638	348	77.4	141,974
Fullerton, California	C	59,993	37,609	97,602	87	112.4	42,745
Gadsden, Alabama	A	44,046	11,046	55,092	84	66.0	29,956
Gainesville, Florida	A	62,290	32,844	95,134	122	77.8	44,515
Galveston, Texas	A	38,101	20,179	58,380	74	78.7	28,954
Garden Grove, California	C	69,829	15,703	85,532	115	74.5	47,191
Garland, Texas	C	NA	NA	83,623	113	73.9	42,450
Gary, Indiana	A	107,992	20,817	128,809	184	69.9	51,860
Gastonia, North Carolina	A	52,941	14,728	67,669	85	79.7	32,603
Glendale, Arizona		(Included in Phoenix, Arizona)					
Glendale, California		(Included in Los Angeles, Extended Area)					
Grand Prairie, Texas	C	43,015	21,524	64,539	72	89.2	27,565
Grand Rapids, Michigan	A	232,755	73,457	306,212	352	87.1	153,921
Granite City, Illinois	A	38,615	8,674	47,289	69	68.7	24,384
Great Falls, Montana	A	45,141	17,735	62,876	81	77.2	31,786
Green Bay, Wisconsin	A	71,619	28,532	100,151	135	74.1	51,330
Greensboro, North Carolina	A	146,656	58,715	205,371	220	93.5	89,510
Greenville, South Carolina	A	129,928	51,031	180,959	241	75.1	85,078
Hamden, Connecticut		(Included in New Haven, Connecticut)					
Hamilton, Ohio	A	65,747	19,524	85,271	121	70.4	44,993
Hammond, Indiana	A	61,936	12,172	74,108	107	69.1	23,843
Hampton, Virginia		(Included in Newport News, Virginia)					
Harrisburg, Pennsylvania	A	144,982	69,474	214,456	208	103.0	90,962
Hartford, Connecticut	A	202,647	123,924	326,571	366	89.3	142,535
Hayward, California	A	109,536	39,181	148,717	216	68.9	85,239
Hialeah, Florida		(Included in Miami, Florida)					
High Point, North Carolina	A	54,574	24,097	79,671	109	73.1	42,252

Ø Fairfield-Suisun Exchange
Fremont Newark Exchange

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
Hollywood, Florida	A	187,909	39,916	227,825	280	81.5	124,843
Honolulu, Hawaii	A	219,781	156,077	375,858	352	106.8	204,809
Houma, Louisiana	A	36,888	12,800	49,688	84	59.1	26,385
Houston, Texas	A	901,913	534,445	1,436,358	1,700	84.5	682,770
Huntington, West Virginia	A	70,079	24,184	94,263	145	65.2	57,023
Huntington Beach, California	C	125,584	21,267	146,851	162	90.5	76,059
Huntsville, Alabama	A	101,563	49,240	150,803	188	80.1	64,661
Independence, Missouri	C	53,943	10,827	64,770	154	42.2	35,385
Indianapolis, Indiana	C	486,728	193,455	680,183	764	89.1	281,432
Irving, Texas	A	NA	NA	83,461	113	73.8	44,162
Jackson, Mississippi	A	145,633	67,303	212,936	255	83.4	96,040
Jacksonville, Florida	D	310,118	121,086	431,204	553	78.0	198,087
Janesville, Wisconsin	A	34,135	10,545	44,680	60	74.8	23,112
Jersey City, New Jersey	A	138,886	46,962	185,848	263	70.6	100,353
Joliet, Illinois	A	77,606	23,374	100,980	134	75.5	46,663
Kalamazoo, Michigan	A	110,687	44,057	154,744	178	87.0	72,422
Kansas City, Kansas	C	126,286	47,325	173,611	210	82.7	80,424
Kansas City, Missouri	C	201,831	149,663	351,494	343	102.5	141,616
Kenner, Louisiana	A	66,395	10,861	77,256	116	66.6	40,940
Kenosha, Wisconsin	A	48,581	14,540	63,121	97	65.0	32,909
Kettering, Ohio			(Included in Dayton, Ohio)				
Knoxville, Tennessee	A	155,776	67,044	222,820	292	76.4	11,489
Kokomo, Indiana	A	48,326	15,287	63,613	92	68.9	29,917
Lafayette, Louisiana	A	65,071	28,247	93,318	114	81.9	48,297
Lake Charles, Louisiana	A	63,391	21,961	85,352	112	76.3	44,280
Lakeland, Florida	A	63,706	20,745	84,451	132	64.1	52,185
Lakewood, Colorado			(Included in Denver, Colorado)				
Lakewood, Ohio			(Included in Cleveland, Ohio)				
Lancaster, Pennsylvania	A	78,997	34,238	113,235	119	94.9	52,264
Lansing, Michigan	A	146,558	81,409	227,967	249	91.6	95,711
Laredo, Texas	A	31,515	14,748	46,263	93	50.0	24,901
Las Vegas, Nevada	A	296,564	122,845	419,409	396	106.0	175,416
Lawrence, Kansas	A	32,842	14,861	47,703	51	93.7	22,508
Lawrence, Massachusetts	A	60,829	20,425	81,254	123	66.0	47,551
Lawton, Oklahoma	A	48,365	12,939	61,304	105	58.2	33,222
Lexington, Kentucky	A	115,452	54,634	170,086	195	87.2	96,336
Lima, Ohio	A	38,140	17,842	55,982	95	58.7	31,957
Lincoln, Nebraska	A	148,900	85,200	234,100	192	121.8	174,200
Little Rock, Arkansas	A	152,227	77,287	229,514	266	86.2	109,163
Livonia, Michigan	C	150,091	41,011	191,102	271	70.6	97,525
Long Beach, California			(Included in Los Angeles, Extended Area)				
Longview, Texas	A	50,858	18,468	69,326	92	75.1	34,190
Lorain, Ohio	B	41,403	10,642	52,045	85	61.2	32,270
Los Angeles, California Extended Area	A	4,178,440	1,918,223	6,096,663	6,835	89.2	2,100,220
Louisville, Kentucky	A	433,151	143,605	576,756	740	77.9	286,601
Lowell, Massachusetts	A	84,012	22,259	106,271	170	62.4	38,778
Lubbock, Texas	A	117,749	49,748	167,497	208	80.6	73,701
Lynchburg, Virginia	A	60,910	20,778	81,688	120	68.0	42,556
Lynn, Massachusetts	A	57,721	19,460	77,181	107	72.1	42,269
Macon, Georgia	A	89,388	29,997	119,385	154	77.5	57,379
Madison, Wisconsin	A	125,524	74,681	200,205	209	95.7	92,380
Malden, Massachusetts	C	31,915	7,104	39,019	54	72.0	23,976
Manchester, New Hampshire	A	56,726	25,782	82,508	132	62.6	42,621
Mansfield, Ohio	A	44,486	17,646	62,132	118	52.5	35,477

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
Medford, Massachusetts	C	28,628	5,491	34,119	61	56.2	21,807
Memphis, Tennessee	A	471,667	149,609	621,276	798	77.9	301,363
Meriden, Connecticut	A	32,180	9,037	41,217	64	64.3	27,068
Meridian, Mississippi	A	34,354	11,173	45,527	56	81.4	23,938
Mesa, Arizona		(Included in Phoenix, Arizona)					
Miami, Florida	A	733,033	335,885	1,068,918	1,245	85.8	514,922
Miami Beach, Florida		(Included in Miami, Florida)					
Midland, Texas	C	51,621	23,338	74,939	87	85.8	33,111
Middletown, Ohio	A	34,945	11,189	46,134	68	68.3	23,054
Midwest City, Oklahoma		(Included in Oklahoma City, Oklahoma)					
Milford, Connecticut	A	32,829	9,150	40,979	55	75.2	21,420
Milton, Massachusetts	C	31,414	4,802	36,216	54	67.4	18,385
Milwaukee, Wisconsin	A	606,512	256,223	762,735	1,058	81.5	443,201
Minneapolis-St Paul, Minnesota	A	1,147,700	463,000	1,610,700	2,020	79.7	756,400
Mobile, Alabama	A	184,561	57,720	242,281	350	69.3	122,201
Modesto, California	A	95,533	29,501	125,034	178	70.4	67,825
Moline, Illinois	A	52,944	17,945	70,889	81	87.5	22,295
Monroe, Louisiana	A	69,708	24,051	93,759	133	70.5	47,187
Montgomery, Alabama	A	116,455	42,804	159,259	185	86.3	76,421
Mt Vernon, New York	A	100,853	21,092	121,945	160	76.3	69,946
Mount Prospect, ILlinois		(Included in Arlington Heights Exchange)					
Mountain View, California	C	50,768	28,147	78,915	87	90.8	40,108
Muncie, Indiana	A	56,609	22,658	79,267	107	73.9	37,752
Muskegon, Michigan	A	61,880	22,101	83,981	132	63.9	49,169
Nashville, Tennessee	A	293,243	127,752	420,995	502	83.8	195,300
Nashua, New Hampshire	A	46,877	21,909	68,786	103	66.8	32,329
New Bedford, Massachusetts	A	75,643	20,109	95,752	150	63.8	56,951
New Britain, Connecticut	A	47,885	13,463	61,348	97	63.4	36,459
New Haven, Connecticut	A	194,974	79,357	274,331	314	87.4	131,349
New Orleans, Lousiana	A	549,848	204,669	754,517	978	77.1	383,257
New Rochelle, New York	D	50,343	12,486	62,829	71	88.2	34,521
New York, New York	B	3,916,839	1,930,892	5,847,731	7,253	80.6	3,203,091
Newark, New Jesey	A	213,888	115,366	329,254	389	84.6	152,929
Newport Beach, California	C	89,650	36,888	126,538	116	109.6	65,171
Newport News Metro Area, Virginia	C	153,324	61,518	214,842	318	67.7	88,658
Newton, Massachusetts	D	59,186	19,270	78,456	93	84.3	39,626
Niagara Falls, New York	A	45,158	17,162	62,320	103	60.6	35,697
Norfolk Metro Area, Virginia	C	361,808	112,808	474,616	707	67.2	245,734
Norman, Oklahoma		(Included in Oklahoma City, Oklahoma)					
North Little Rock, Arkansas		(Included in Little Rock, Arkansas)					
Norwalk, Connecticut	D	50,139	19,959	70,098	82	85.1	34,649
Oak Lawn, Illinois	A	106,184	19,474	125,658	192	65.3	43,882
Oak Park, Illinois	B	45,765	10,440	56,205	70	80.4	26,544
Oakland, California		(Included in East Bay Exchange)					
Oceanside, California	C	55,312	14,958	70,270	121	58.1	39,473
Odessa, Texas	A	67,897	25,725	93,622	119	78.5	43,002
Ogden, Utah	A	71,035	20,913	91,948	148	62.1	46,212
Oklahoma City, Oklahoma	C	455,806	185,628	641,434	750	85.5	309,132
Omaha, Nebraska	A	351,500	117,700	469,200	577	81.3	210,100
Ontario, California	A	105,589	23,783	129,372	140	92.2	66,839
Orange, California	C	90,713	33,912	124,625	144	86.7	61,073
Orlando, Florida	A	179,177	84,399	263,576	343	76.8	127,300
Oskhosh, Wisconsin	A	33,076	14,142	47,218	65	72.2	24,707
Overland Park, Kansas Ø	C	110,836	26,895	137,731	158	87.2	59,697

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
Owensboro, Kentucky	A	35,924	13,846	49,770	70	71.1	26,406
Oxnard, California	A	92,852	28,364	121,216	170	71.3	63,998
Palo Alto, California	A	85,395	77,224	162,619	147	110.5	67,652
Parkersburg, West Virginia	A	46,309	15,708	62,017	93	67.0	35,348
Parma, Ohio	A	61,643	10,908	72,551	114	63.4	42,058
Pasadena, California		(Included in Los Angeles Extended Area)					
Psadena, Texas		(Included in Houston, Texas)					
Passaic, New Jersey	A	108,156	35,779	143,935	177	81.2	81,535
Paterson, New Jersey	A	98,263	31,338	129,601	196	66.2	65,992
Pawtucket, Rhode Island	A	73,811	19,760	93,571	154	61.0	56,661
Pensacola, Florida	A	112,864	39,686	152,550	227	67.3	73,997
Peoria, Illinois	A	150,328	52,691	203,019	230	88.4	86,101
Petersburg, Virginia	A	48,205	12,220	60,425	95	63.4	33,012
Philadelphia, Pennsylvania	B	1,251,377	454,822	1,706,199	1,805	94.5	742,668
Phoenix, Arizona	A	807,639	281,688	1,089,327	1,384	78.7	567,155
Pine Bluff, Arkansas	A	39,251	13,112	52,363	83	63.2	28,307
Pittsburgh, Pennsylvania	A	556,185	264,854	821,039	884	92.9	374,309
Plano, Texas	C	NA	NA	46,704	62	74.8	22,973
Pittsfield, Massachusetts	A	32,878	13,756	46,634	61	77.0	23,446
Pomona, California	A	162,756	48,010	210,766	221	95.5	104,390
Pompano Beach, Florida	A	160,777	33,972	194,749	211	92.4	106,938
Pontiac, Michigan	A	93,477	34,119	127,596	146	87.6	58,677
Port Arthur, Texas	A	43,571	12,001	55,572	86	64.5	31,239
Portland, Maine	C	32,355	24,328	56,683	60	94.5	26,439
Portland, Oregon	A	330,663	180,560	511,223	573	89.2	204,434
Portsmouth, Virginia		(Included in Norfolk, Virginia)					
Provo-Orem, Utah	A	57,095	19,366	76,461	126	60.6	38,380
Providence, Rhode Island	A	191,166	91,820	282,986	370	76.5	145,134
Pueblo, Colorado	A	59,022	19,946	78,968	124	63.7	45,648
Quincy, Illinois	A	35,135	11,520	46,655	61	76.6	22,775
Quincy, Massachusetts	A	49,703	16,897	66,600	95	69.9	30,667
Racine, Wisconsin	A	65,209	22,716	87,925	136	64.7	45,415
Raleigh, North Carolina	A	142,619	67,364	209,983	231	90.8	88,761
Reading, Pennsylvania	A	124,831	42,146	166,977	193	86.4	80,520
Redwood City, California	A	44,531	18,378	62,909	80	78.5	35,651
Reno, Nevada	A	102,539	51,907	154,446	180	86.0	76,844
Richardson, Texas	C	63,825	31,121	94,946	87	109.1	37,559
Richmod, California	A	71,796	23,521	95,317	135	70.5	52,471
Richmond, Virginia	A	280,878	121,278	402,156	507	79.4	191,325
Riverside, California	C	135,594	41,554	177,148	255	78.7	89,615
Roanoke, Virginia	A	102,382	32,609	134,991	202	67.0	72,537
Rochester, Minnesota	A	43,200	28,000	71,200	79	90.6	49,500
Rochester, New York	A	238,962	118,802	357,764	539	66.4	182,350
Rockford, Illinois	A	149,896	47,474	197,370	224	88.0	84,908
Rock Island, Illinois	A	46,405	13,521	59,926	71	84.2	26,195
Rome, Georgia	A	43,778	13,383	57,161	76	75.5	29,081
Roseville, Michigan		(Included in Warren, Michigan)					
Royal Oak, Michigan	A	159,078	51,239	210,317	257	81.8	109,799
Sacramento, California	C	370,598	166,407	537,005	664	80.8	273,196
Saginaw, Michigan	A	104,210	32,164	136,374	175	77.8	68,616
St. Clair Shores, Michigan		(Included in Warren, Michigan)					
St. Joseph, Missouri	A	50,013	14,929	64,942	95	68.3	34,763
St. Louis, Missouri	C	390,143	196,687	586,830	646	90.8	281,455

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
St. Paul, Minnesota		(Included in Minneapolis-St. Paul, Minnesota)					
St. Petersburg, Florida	A	227,644	73,695	301,339	494	61.0	201,280
Salem, Oregon	A	83,421	33,735	117,156	164	71.3	51,228
Salinas, California	A	51,760	19,411	71,171	94	76.1	38,119
Salt Lake City, Utah	A	373,073	143,745	516,818	620	83.3	239,713
San Angelo, Texas	A	NA	NA	62,313	79	78.5	31,146
San Antonio, Texas	C	306,904	121,345	428,249	668	64.1	225,013
San Bernardino, California	C	74,594	32,235	106,829	144	74.1	53,718
San Diego, California Extended Area	A	803,613	297,556	1,101,169	1,359	81.0	580,384
San Francisco, California	A	472,501	373,046	845,547	734	115.2	424,972
San Jose, California	A	454,064	184,057	638,121	853	74.8	327,024
San Mateo, California	A	97,799	37,110	134,909	152	88.9	72,260
Santa Ana, California	C	320,780	171,981	492,761	467	105.6	233,774
Santa Barbara, California	A	97,549	45,828	143,377	152	94.5	74,420
Santa Clara, California		(Included in San Jose, California)					
Santa Rosa, California	A	78,829	27,685	106,514	130	82.2	58,743
Sarasota, Florida	A	95,854	33,841	129,695	158	82.2	78,107
Savannah, Georgia	A	111,729	39,173	150,902	213	70.9	72,258
Schenectady, New York	A	99,077	32,965	132,042	173	76.4	73,818
Scottsdale, Arizona		(Included in Phoenix, Arizona)					
Scranton, Pennsylvania	A	68,316	25,518	93,834	122	76.9	48,563
Seattle, Washington	A	411,344	249,448	660,792	670	98.7	263,824
Shreveport, Louisiana	A	161,012	56,038	217,050	300	72.4	109,422
Simi, California	A	41,959	6,612	48,571	88	55.0	25,777
Sioux City, Iowa	A	56,800	20,700	77,500	95	81.8	37,000
Sioux Falls, South Dakota	A	58,600	24,800	83,400	97	86.1	38,100
Skokie, Illinois	A	105,489	41,381	146,870	144	102.0	59,627
Somerville, Massachusetts	C	40,487	8,313	48,800	87	56.3	33,009
South Bend, Indiana	A	102,900	40,645	143,545	178	80.8	66,859
Southfield, Michigan	C	67,170	53,069	120,239	78	155.1	47,398
Spartanburg, South Carolina	A	69,278	25,375	94,653	140	67.6	46,242
Spokane, Washington	A	171,975	62,708	234,683	320	73.3	105,727
Springfield, Illinois	A	105,878	50,785	156,663	155	100.8	62,132
Springfield, Massachusetts	A	116,448	43,359	161,807	220	73.6	86,635
Springfield, Missouri	A	94,585	37,573	132,158	170	77.9	67,372
Springfield, Ohio	A	59,354	17,350	76,704	112	68.4	40,872
Stamford, Connecticut	C	76,406	39,363	115,769	121	96.0	51,912
Sterling Heights, Michigan		(Included in Warren, Michigan)					
Stockton, California	A	112,016	38,310	150,326	229	65.7	82,800
Stratford, Connecticut		(Included in Bridgeport, Connecticut)					
Sunnyvale, California	C	64,334	58,666	123,000	118	104.2	49,158
Syracuse, New York	A	174,038	79,541	253,579	346	73.2	133,994
Tacoma, Washington	A	189,698	62,606	252,304	317	79.6	115,768
Tallahassee, Florida	A	69,373	43,691	113,064	145	77.7	64,971
Tampa, Florida	A	281,986	125,668	407,654	680	60.0	253,172
Taunton, Massachusetts	A	30,053	7,457	37,510	63	59.4	21,503
Taylor, Michigan		(Included in Detroit, Michigan)					
Tempe, Arizona		(Included in Pheonix, Arizona)					
Terre Haute, Indiana	A	52,056	24,093	76,149	111	68.6	40,577
Texarkana, Texas	A	NA	NA	60,930	80	76.5	20,819
Thousand Oaks, California	C	52,632	15,683	68,315	78	88.0	32,492
Toledo, Ohio	A	233,105	82,692	315,797	423	74.7	160,637
Topeka, Kansas	C	87,182	39,053	126,235	136	92.7	56,512
Torrance, California		(Included in Los Angeles Extended Area)					
Trenton, New Jersey	A	67,909	39,196	107,105	144	74.3	46,199
Troy, Michigan	D	29,748	9,791	39,539	53	74.8	18,923

TELEPHONE DEVELOPMENT IN LARGE EXCHANGE AREAS

IN THE UNITED STATES JANUARY 1, 1979

NOTE: THESE AREAS ARE GENERALLY LARGER THAN THE CORPORATE AREAS OF THE CITIES THEY SERVE

Exchange or Zone Area	Code*	Telephones			Population (In Thousands)	Telephones Per 100 Pop.	Total Main Telephones
		Residence	Business	Total			
Troy, New York	A	62,927	15,917	78,844	141	56.0	50,594
Tucson, Arizona	A	249,248	85,784	335,032	481	69.6	184,461
Tulsa, Oklahoma	C	287,213	125,693	412,906	490	84.4	203,027
Tuscaloosa, Alabama	A	66,497	23,133	89,630	127	70.8	46,164
Tyler, Texas	A	58,937	21,454	80,391	105	76.7	39,512
Union City, New Jersey	A	102,832	31,052	133,884	169	79.1	75,590
Utica, New York	A	66,048	24,702	90,750	146	62.1	52,801
Valdosta, Georgia	A	30,284	12,375	42,659	58	73.3	20,143
Vallejo, California	A	47,545	16,667	64,212	88	73.3	33,143
Ventura, California	C	41,193	18,914	60,107	67	90.3	32,544
Vineland, New Jersey	C	37,273	12,197	49,470	64	77.2	25,150
Virginia Beach, Virginia			(Included in Norfolk, Virginia)				
Waco, Texas	A	74,074	30,400	104,474	168	62.2	52,466
Waltham, Massachusetts	C	37,842	34,138	71,980	76	95.0	31,716
Warren, Michigan	A	252,933	74,169	327,102	449	72.8	167,216
Warren, Ohio	A	52,981	20,326	73,307	124	59.2	40,210
Warwick, Rhode Island	B	33,007	8,758	41,765	58	72.0	22,134
Washington, D. C.	B	512,042	554,034	1,066,076	672	158.6	354,528
Waterbury, Connecticut	A	66,749	22,961	89,710	123	73.1	47,997
Waterloo, Iowa	A	55,200	19,400	74,600	96	77.5	35,700
Waukegan, Illinois	A	73,484	31,961	105,445	152	69.6	44,370
Waukesha, Wisconsin	A	36,761	15,403	52,164	68	77.0	25,132
Wauwatosa, Wisconsin			(Included in Milwaukee, Wisconsin)				
Weirton, West Virginia	A	36,147	8,561	44,708	70	63.7	27,035
West Allis, Wisconsin			(Included in Milwaukee, Wisconsin)				
West Hartford, Connecticut			(Included in Hartford, Connecticut)				
West Haven, Connecticut			(Included in New Haven, Connecticut)				
Westland, Michigan			(Included in Livonia-Wayne, Michigan)				
Westminister, California	C	68,300	25,043	93,363	139	67.3	45,969
West Palm Beach, Florida	A	232,850	71,101	303,951	365	83.2	160,283
Weymouth, Massachusetts	A	30,678	5,629	36,307	66	55.0	21,771
Wheeling, West Virginia	A	48,786	17,550	66,336	99	67.0	39,444
Wichita, Kansas	C	164,526	80,675	245,201	267	91.7	110,694
Wichita Falls, Texas	C	58,380	25,350	83,730	121	69.1	41,739
Wilkes-Barre, Pennsylvania	A	51,991	20,725	72,716	92	79.4	37,665
Wilmington, Delaware	A	133,259	69,275	202,534	230	87.9	83,639
Wilmington, North Carolina	A	58,112	19,023	77,135	98	78.6	36,654
Winston-Salem, North Carolina	C	129,551	50,778	180,329	207	87.0	78,771
Winter Park, Florida	A	105,477	39,744	145,221	182	79.8	78,567
Worcester, Massachusetts	A	101,968	44,801	146,769	199	73.6	78,041
Wyoming, Michigan			(Included in Grand Rapids, Michigan)				
Yonkers, New York	D	68,542	17,817	86,359	129	66.7	53,147
York, Pennsylvania	A	72,179	30,291	102,470	124	82.6	53,110
Youngstown, Ohio	A	150,479	38,964	189,443	260	72.9	99,299

*EXTENT OF EXCHANGE

Within City		Outside City	
Serves the entire city		Also serves byond city	A
		Confined to city	B
Does not serve the entire city		But serves beyond city	C
		Confined to city	D

Source: FCC Common Carrier Statistics